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**THE AMERICAN  
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# THE AMERICAN JOURNAL OF PSYCHIATRY

## LETTER FROM FRANCE \*

MY DEAR COLLEAGUE:

Much time has passed since you have had news of French psychiatry. It is for me a great honor to revive in this JOURNAL an ancient tradition. Like my predecessors I shall try to bring to you as faithfully and simply as possible the spirit of the works that I now report.

During the past six years living conditions for most of us have been such that it might well have been feared that all activity would cease. Numerous members of our profession were deported, two at least did not return: Professors Levy-Valensi, department of psychiatry of the Faculty of Paris, and Dide of Toulouse. Others have lived in hiding and complete isolation. Still others have been casualties of war, for example, Madame Lecomte-Lorsignol, who while carrying her fifth child was killed at Rouen. Many hospitals had to be evacuated and set up again in remote places wherever fortune favored. Everything needful for the care of patients was lacking, at first even food and medicine, especially insulin. Eventually the scarcity of clinical material and of experimental animals forced the laboratories to close. The existence of the line of demarkation between the occupied and unoccupied zones, the necessity of obtaining permits, the paucity and overcrowding of trains; made access to the large centres, including Paris, very difficult for most persons; and in consequence of the black-out, the alerts, the scarcity of public means of transport and the ban on privately owned cars, attendance at meetings of the Medico-Psychological Society was greatly restricted. Despite all this each one in his retirement, even enforced isolation, worked on by himself.

If the results of these labors have seen the light of day, it is primarily due to the efforts of the Editor-in-chief of the *Annales Medico-Psychologiques*. Dr. René Charpentier, whose foresight and planning, including a

change of publisher in order to avoid the restrictions of the northern zone, made it possible to publish the 1940-45 volumes of the *Annales*, with the number of pages reduced hardly one-half, as compared with the preceding five years of peace.<sup>1</sup>

In 1943, to celebrate the centenary of the *Annales*, Dr. Charpentier achieved the *tour de force* of publishing a volume of 400 pages devoted entirely to the relations of psychiatry and connected disciplines (neurology, biology, endocrinology, psychology, etc.). The various publishers also succeeded in bringing out several volumes demonstrating flawless bookmaking.<sup>2</sup> Finally, the Congress of French Alienists and Neurologists was able to hold a meeting at Montpellier in 1942, at which the physicians from the two zones were united for the first time in three years.<sup>3</sup>

I have reviewed the existing material, but the number and variety of the contributions are such, from pure psychopathology to teratology and anatomo-clinical subjects, not to speak of the clinical curiosities, that it would hardly be possible to report them without expanding my letter into a catalogue. I have preferred to select somewhat arbitrarily certain themes and to dwell a little more fully upon these.

### REACTIVE CONDITIONS

#### (Pathologie de circonstance)

The exodus of 1940 multiplied the emotional psychoses. Caron, Chatagnon, Hecan and Daumazon, notably, reported cases during the following year, some of which were particularly tragic. Another phenomenon also engaged the attention of our colleagues, namely pathological alcoholism. During the "phoney war" of 1939-40 it was a dominant problem in military psychiatry. From 1941

<sup>1</sup> For comparison be it noted that many medical journals ceased publication altogether and that others had to be reduced to one-fifth of their pre-war volume.

<sup>2</sup> See bibliography terminating this article.

<sup>3</sup> See bibliography.

\* This review, written early in 1946, does not cover articles appearing after Dec. 31, 1945.

onward, the scarcity of alcoholic beverages and their high prices imposed quite effectively an era of prohibition.<sup>4</sup>

In consequence the number of annual hospital admissions fell to one-half or even one-third of the usual figure (Gouriou). At the same time there was noted an extreme sensitivity to minimal doses of alcohol on the part of the severely undernourished, and particularly among the repatriates (Bachet).

But hospital populations were not reduced alone by fewer admissions; food shortage also played its part. In 1942 Caron, Daunezon and Leculier noted in their hospital, although situated in an agricultural region, a death rate increase of 305 percent above the average figure of recent years. The sensitivity of mental patients to malnutrition has proved to be much greater than that of other categories of the population. A high incidence of pulmonary tuberculosis has been noted (Bourgeois Vié and collaborators; Le-Page, Caron, Daunezon and Leculier). The bone lesions described after World War I by Looser and by Milkman in Austria, have again been reported (Chatagnon and Madon). Especially noteworthy has been a form of cachexia with oedema, becoming generalized, and of such intensity that at Nancy, Hamel, Meignant and Miss Munier observed 166 cases with 145 deaths among 500 internees. Similar cases have been reported by Abely, Adam, Bessiere, Brisson and Talairach, Chatagnon, Dublineau and Bonafé, and by Montassut, Durand and Ripart, Sivadon and Quiron. The most complete study has been made by Baruk and H. Gounelle. In the first stage one finds colitis, with diarrhoea and gastric dilatation; in the aggravated second stage oedema appears, accompanied by intractable diarrhoea and sometimes by signs of pellagra. There follows rapid muscular wasting, with stupor, and death in coma terminates the scene.

After considering the possibility of various vitamin deficiencies, particularly the lack of vitamin PP, and excess of fluid from a predominantly leguminous diet (during 1942 mainly rutabagas and artichokes, hitherto

<sup>4</sup> Unfortunately, existing legislation, backed by the voting power of the dealers in alcoholic beverages, seems unlikely to guarantee maintenance of this situation.

used as fodder for cattle), most authors have inclined to the opinion of Dublineau and Bonafé, Chatagnon and H. Gounelle that this syndrome results from dietary imbalance due to lack of animal proteins and lipides. The reduction of the blood proteins the therapeutic effect of milk, soya and casein tend to support this opinion.

*Psychic Anorexia.*—At the Congress of 1942, the psychic anorexias were the subject of a report by Cremieux. Particular importance had been assigned to this topic because too many physicians, following the work of Simmonds on hypophyseal cachexia and that of Bickel, came to regard even the simple forms of psychic anorexia as hypophyseal cachexia. Although the teachings of your compatriot Weir Mitchell and of Déjerine concerning dietary re-education had carried their own evidence, they had lost ground to the uncertainties of endocrine therapy, and success was thereby compromised. The discussion, in which participated Laignel-Lavastine, Porot, Euzière and Bert, Cossa, Noel Peron, Carrier, Donnadiou, Heuyer, Giraud, Riser, Tapie and Giraud, Janbon, Chaptal and Loubatière,<sup>5</sup> indicated the general acceptance of the conclusions of the report, namely: There are psychic anorexias in the strict sense, mainly of psychogenetic origin, and which are to be distinguished from the psychic anorexias and sitophobias of psychotic patients (secondary to the mental disturbance). There are forms of emaciation and cachexia of endocrine origin.<sup>6</sup> Finally there are transitional forms. However the true psychic anorexias are vastly more frequent than hypophyseal cachexias. They yield to supervised dietary re-education<sup>7</sup> (N. Peron); and clinical and biological tests for hypophyseal insufficiency have been negative (preceding menstrual troubles; hypercholesterolemia in spite of jaundice; wide variation between hyperglycemic levels in-

<sup>5</sup> Who had succeeded in obtaining an extremely active hypophyseal extract, the production of which was rendered impossible by existing conditions.

<sup>6</sup> Cf. a striking case of Simmonds cachexia reported by Brissot and Froidefond, resulting from lodgement of a projectile in the sella turcica.

<sup>7</sup> Perhaps less strictly true today. After five years of serious food shortage the psychic anorexias that we now see do not react so well to supervised realimentation.

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duced intravenously and orally) Even if psychic anorexia presents a hypophyseal component<sup>8</sup> it is good practice to proceed as if the syndrome were entirely psychogenetic and to institute the classical Weir Mitchell-Déjerine treatment with the least possible delay.<sup>9</sup>

#### BIOLOGICAL SHOCK TREATMENTS

In 1940 H. Claude<sup>10</sup> and Rubenovitch made a detailed study of the biological therapies of mental disorders; and in 1945 the subject was dealt with in a book by the present writer. These treatment methods were also under consideration at the Geneva-Lausanne Congress of Alienists and Neurologists in July 1946.

1. *Insulin*. In 1940 a few centres in France were equipped to apply Sakel's method. The subsequent scarcity of insulin curtailed scientific work in this field. In a series of reports on 140 schizophrenics regularly followed up, P. Cossa and H. Bougeant emphasize the thoroughness of treatment necessary—at least 50 shocks with an hour of coma. Of cases so treated they estimate 40 percent of complete remissions. In agreement with other observers they note the greater prospect of recovery in recent cases (duration under six months), with complete remission in 60 percent. In this follow up they found that not more than 10 percent of treated cases whose remissions had lasted six months tended to relapse.

On the experimental side, J. Delay<sup>11</sup> with A. Soullairac and Miss Jouannais have noted, in the course of shock, parallel with the hypoglycemia a decrease in the alkali reserve and of blood chlorides, an increase of serum proteins, lipides and potassium without appreciable variation of calcium, also a reduction in the number of leucocytes with shift

of the Arneth index to the left. Cossa and Bougeant, finding in 1939 that insulin shock is accompanied by intracranial hypertension, demonstrated on animals that this phenomenon is due to massive oedema of the cerebrum, cerebellum and brain stem,<sup>12</sup> at first perivascular, then pericellular, finally interstitial. The curative value of insulin coma they attribute to this oedema, a veritable lymphoid bath, which enhances enormously the physiological drainage of metabolic waste products from the nervous tissue. J. Delay and Miss Moreau have since confirmed the independence of the state of consciousness of the blood sugar level, and also the existence of the increased intracranial pressure. They demonstrated a secondary hypotension.

The curious complication—prolonged coma—has received attention, particularly by Abely, P. Cossa, R. Agid and Dalaize published a remarkable case of coma lasting two months and ending in death. During this period the patient presented three successive stages, corresponding to levels of the cerebrospinal axis; quadriplegic flexed contractions, decerebration, decortication.

2. *Cardiazol* has been the subject of very few reports, having rapidly given way to electroshock, a method more readily controlled and less painful for the patient. Bordenat, Porot and Leonardon sought to use the drug as a test of convulsive potential.

3. *Electroshock*. This therapeutic method has enjoyed great popularity because of the ease of its application and its apparent harmlessness.<sup>13</sup> Cerletti's original contribution dates from the congress at Copenhagen, July 1939. In 1940, despite the war, an article by Plichet made it known in France and Lamarche, DeBeaulieu and Estienne published the first reports of results in our country.

(a) *Apparatus*.—The first work was done

<sup>12</sup> Pulmonary oedema of similar nature accompanies the cerebral oedema.

<sup>13</sup> V. studies by Balvet, Chaurard and Tusquelles; Binois; Brousseau, Cazalis and Laubry; Cornil and collaborators; Cossa and Bougeant; Daumezon and Cassas; Delay and collaborators; Delmas-Marsalet and collaborators; Doussinet and Elizabeth Jacob; Forel, Feuillade; Guiraud and collaborators; Heuyer, Bour and Fild; Hyvert; Lamarche, DeBeaulieu and Estienne; Montassut and collaborators; Martimor and Morin; Michaux and Tison; Plichet; Rondepierre and Lapipe; Quercy; Tison.

<sup>8</sup> Such component, hypophyseal or diencephalo-hypophyseal, may be primary (slight constitutional insufficiency, facilitating the anorexic reaction to mental disturbance), or secondary to hypophyseal inanition.

<sup>9</sup> Cornil, Schachter and Vague have reviewed the clinical and physiopathological problem of the emaciation states (a volume of 232 pp. Masson, publisher).

<sup>10</sup> Professor Henri Claude died in 1945.

<sup>11</sup> Recently appointed at the age of 38, professor of clinical neuropsychiatry at Paris.

with a Swiss machine or with whatever equipment could be put together. Soon however, two French machines were available, that of Delmas-Marsalet and Bramerie, using a pulsating current; and one by Rondepierre and Lapipe, using an alternating current. The former had an ingenious device to determine the duration of the current applied (under 200 volts); it also permits the production of non-convulsive shocks (electro-absences). More ambitious, Rondepierre and Lapipe have believed that they could establish a physical law of electroshock.<sup>14</sup> This law can only be regarded as approximate and as lacking the mathematic rigor ascribed to it by the authors. It can be said that with either of these instruments we are able to administer electroshocks under favorable technical conditions and without the risk of overdosage.

(b) *Results*.—There is general agreement as to the remarkable efficacy of electroshock in frank and reactive depressions and the involutional melancholias. Manic attacks react well but relapse easily and may then require insulin. Confusional states respond favorably, provided toxic-infectious factors have been corrected. Non-cyclic states of anxiety and hypochondriac reactions do less well. In the course of schizophrenia (excepting

<sup>14</sup> By ingeniously introducing a strong metallic resistance, these authors measure the resistance of the head for a current similar to that used for shock but much weaker. On the basis of 1,000 electroshocks so controlled, they formulated the law as follows: For the same individual and for a given duration of current, the electrical energy required to produce convulsions should be the same whatever the resistance.

It has been objected that the resistance of the skull is not equivalent to Ohm resistance. Rondepierre and Lapipe then registered by the oscillograph the intensity and voltage used. They established, (1) that I and E remain constant; (2) that the angle of incidence is small, with purely Ohm resistance. They therefore concluded that Ohm's law could be applied and that in consequence I and E do not vary, and that R remains practically constant. But Delmas-Marsalet has observed that most of the current furnished by this apparatus is absorbed by the extra-cerebral tissues, the smaller and solely active part traverses the brain and provokes the crisis. We are ignorant of the relationship of these two portions, and this fact makes illusory any absolute determination of the quantity of current required.

cyclic and confusional forms) convulsive therapy serves only to supplement insulin therapy.

(c) *Accidents*.—Osteo-articular accidents occur much less frequently than with cardi-azol. They are reported less often in France than in the American statistics (perhaps because we avoid mechanically restraining the patients). Doubtless modifications of technique, such as previous curarization, will favor the elimination of such accidents.

Disregarding the rare pulmonary accidents and the reversible psychic complications (the classical amnesia), we turn now to the hotly debated question: does convulsive therapy predispose to epilepsy? The reported clinical observations are inconclusive. However, Delay and collaborators, Cornil and collaborators have shown that patients who have been treated too long by electroshock have electroencephalographic changes (large slow waves) similar to those seen in the subclinical epilepsies. These disturbances probably appear only in predisposed persons, and disappear during the weeks following termination of treatment. They are a warning that treatment should not be extended beyond the twelfth shock without making the electroencephalographic test.

(d) *Biological Study of Electroshock*.—The electrically induced crisis produces a series of neurovegetative, humoral and endocrine changes that have been particularly studied by Delay and his school.

1. Neurovegetative changes: sinus tachycardia, preceded or followed by bradycardia, sometimes associated with changes in the electrocardiogram (Delay and Heim de Balsac); arterial hypertension preceded or followed by hypotension (Delay, Parisot and Luquet); apnea, relieved by inhalation of carbon dioxide; gastric hypersecretion and hyperacidity (Delay and Boitelle); mydriasis followed by myosis (Delay and Dubar). In sum, a short phase of intense excitation predominantly vagal, then a definite phase of sympathetic excitation, finally a phase of slow moderate vagal excitation.

2. Humoral changes. This aspect of electroshock has received long and detailed study

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by Delay and Soulairac:<sup>15</sup> definite hyperglycemia following a short phase of hypoglycemia and followed by a long phase of hypoglycemia; hyperproteinemia without hyperazotemia; hyperlipidemia without hypercholesterolemia; increased blood sodium with decreased blood potassium; hypercalcemia and hyperphosphoremia, intracellular hyperchloremia without alteration in the plasma chlorides; lowering of the alkaline concentration by about 20 percent.

3. Hematological changes: Hyperleucocytosis with increase of neutrophile polynuclears (contrary to the findings of Felici); shift of Arneth's index at first to the right, later to the left.

Delmas-Marsalet has criticized some of these results and has shown that certain of the observed changes are not due to the effect of the current upon the brain but rather to the great expenditure of muscular energy during convulsions. In fact Delay and Soulairac have shown that in electro-absences without convulsion there is neither hyperproteinemia nor acidosis, but that there is alkalosis, hyperglycemia, arterial hypertension and significant monocytosis.

(e) *Mode of Action*.—Delay has summed up the known data of the manic and depressive processes (experimental and neurosurgical data), of the holothymic and noetic effects of electroshock, its biological reaction, also the fact that the epileptogenic effect of electric stimulation persists in the decorticated animal (Riser). He concludes that the primary effect of shock is probably on the diencephalon,<sup>16</sup> but that the therapeutic effect must be attributed to the combination of coma, convulsion and neurovegetative and humoral shock.

Developing the matter further, Delmas-Marsalet has proposed a psycho-physiological theory of the action of all forms of shock. He has called it the "dissolution—reconstruction hypothesis." According to this thesis the coma represents dissolution of psychic activity, and the waking from coma, re-

construction. Figuratively, one may say that beginning with a given psychic configuration, dissolution reduces it to scattered fragments. Reconstruction must make use of these same fragments but according to a new plan. This reconstructive phase does not simply reproduce in reverse the dissolution phase; the various functions as restored present spatial and temporal differences.

#### NEUROSURGICAL TECHNIQUES

The installation of a neurosurgical service (P. Puech) at Sainte Anne's Hospital has made available new therapeutic techniques. Only one report of prefrontal leucotomy (catatonic syndrome) has been published (Ferdier), and opinions have been unanimously reserved. On the other hand there have been many reports of operation for brain tumors presenting only mental symptoms.<sup>17</sup>

More recent observations on mental disturbances associated with ventricular hypotension have been very instructive and suggest therapeutic possibilities (Delay and associates; Puech and associates in a case of melancholia); cases with ventricular distention (David, Hecan and Fouquet in a case of dementia); distention of the basal subarachnoid cistern (Delay and associates in a case of acute delirium), or a diffuse cerebral oedema (David and Hecan in a case of catatonia).

Delay has described the encephalographic and ventrilographic pictures of cerebral atrophy in mental defect, Pick's disease, Alzheimer's disease, the degenerative dementias of adults, Huntington's chorea, paresis, toxic dementias and the chronic psychoses.<sup>18</sup> He has indicated the possible therapeutic application in mania and melancholia. He has studied humoral changes following air injection and has pointed out their relationship to the changes induced by electroshock.

<sup>17</sup> David and associates; Hecan and Sauguet; Marchand, *solus*; then with Rondepierre, De Ajuraguera and Menanteau; later with Gouriou; also with Courbon; Puech and associates; Riser, Dardenne, Ferdier and Gayral; Tusques, Puech and Miss Leulier.

<sup>18</sup> Delay has made studies of the electroencephalographic changes in the same cases.

<sup>15</sup> V. also studies by Montassut, Delaville and Miss Sauguet, and by Doussinet and Elizabeth Jacob.

<sup>16</sup> The rôle of the diencephalon in psychopathology has been discussed in the Medico-Psychological Society by Delay, Guiraud and Lhermitte.

## OTHER THERAPEUTIC TECHNIQUES

We shall close our discussion of the newer therapies with the mention of the work of Hyvert on the use of gold salts and tuberculin in the convulsive treatment of dementia precox; further, that of Cossa and Bougeant on the tentative treatment of the acute psychoses by insulin; electroshock (Delay) and glucose serum heated to 50° in massive amounts (Hyvert). Penicillin, by the intrathecal and the usual routes, appears to give convincing results in these cases.

## PSYCHOPATHOLOGICAL STUDIES

1. *General Psychopathology*.—H. Ey has enunciated, for the somewhat circumscribed group of his followers, a doctrine which carries neojacksonism to its extreme consequences (association of the various mental syndromes with different levels of disintegration). P. Cossa conceives the relations between pathogenic agent and illness in much less rigid fashion, and takes account of the multiplicity of factors involved.

2. *Memory and Amnesia*.—Following his studies on the agnosias, J. Delay has made many contributions to the problem of memory and the amnesias. According to him there are three mutually dependent ranges of memory: sensorimotor (neurological) memory; autistic memory, embracing the whole field of psychic imagery; social and intellectual memory. Focal lesions of central areas involved in sensorimotor memory give rise to *neurological amnesias*, localized amnesias for individual sensory or motor functions. These consist, on the one hand, of sensory amnesias or agnosias (interoceptive, exteroceptive or proprioceptive), and on the other of motor amnesias or apraxias. These localized breaks in memory follow the Jackson laws.

Disturbances of the social memory constitute the *psychiatric amnesias*. These defects of recording and recall may be localized (temporally, lacunar amnesia; topically, thematic amnesia). These conditions also follow the Jackson laws, but are generalized disturbances.<sup>19</sup> In their presence autistic

<sup>19</sup> The aphasias partake of both neurological and psychiatric amnesias.

memory may be stimulated and express itself in memory falsifications, of which *ecmnesia* is an example. This dynamic conception of memory represents a fortunate reaction from the assumptions of the classical atomistic psychology which did not square with the facts. In the specifically organic form of amnesia, that which is forgotten today, may tomorrow, under stress of an emotion, be remembered. The theory of the brain as a storehouse of images cannot account for such facts. They are accounted for however by the conception, inspired by Jackson and Bergson, of a hierarchy of mnesic functions, normally reciprocally dependent, and which under pathological conditions undergo dissolution from the complex to the simple, from the voluntary to the automatic, and pursue an inverse course in case of restitution.

3. *Psychopathology of Vision*.—J. Lhermitte and J. de Ajuriaguera have studied the physiological effects of lesions affecting the visual function: hemianopsia, cortical blindness, phsyc blindness, verbal blindness, optic alexia and blindness for numbers. Incidentally, a chapter on the psychophysiological theories of psychic blindness illustrates Jackson's aphorism that the location of a lesion must not be confused with the location of a function. Further subjects dealt with by these authors are: spatial agnosia and disorders of orientation; relation of body image to space; constructive apraxia and geometrical apractognosia; and finally amnesia due to occipital lesions. Of particular interest to the psychiatrist is the long chapter on hallucinations both experimental and those due to organic lesions. They consider that pathological hallucinations are the result of a two-fold mechanism of release or excitation of the visual functions, and global psychic deficit. In conclusion, Lhermitte and Ajuriaguera deal with the peduncular hallucinations, studied by them since 1922, and which they attribute to a general disturbance of the regulatory mechanism of sleep, freeing only a part of the sleep function, namely the dream aspect.

4. *Psychiatry and Morals*.—After a long and painful silence H. Baruk has devoted a book to the importance and individuality of the moral sense, its persistence in great men

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who have been insane, and the effect of inflections of moral conscience on the development of certain paranoiac psychoses. He carries his thesis over into the sociological field.

5. *Psychoanalysis*.—Finally, while the strictly orthodox psychoanalysts have remained almost inarticulate, one dissident psychoanalyst, Mme. M. Cavé, has had the courage to subject the work of Freud to pitiless criticism. Psychoanalysis has had the paradoxical fate of scoring an immense popular and literary success, while being rejected by the majority of physicians (only the disciples of Freud accept it in its entirety, but with what enthusiasm!) The wholly intuitive quality of the Freudian genius has deprived his work of the criteria of credibility that professional men demand of a scientific publication. It is necessary, as Dalbiez previously indicated, to distinguish in this work that which is *method* from that which is *theory*, and to subject the latter to minute revision.

#### THE PSYCHIATRIC SERVICES

The law governing the status of the mentally ill in France dates from 1838. It is remarkable that in this field more than a century could pass without the need for modifying the legal controls being recognized. Today, with the therapeutic progress that has been achieved, a revision of the law is imperative. Heuyer and Abely have indicated the changes necessary. Distinction should be made between acute cases favorable for active treatment and the chronic or permanent cases. The former should be admitted to psychiatric hospitals, functioning similarly to general hospitals, or to out-patient clinics. Legal formalities for commitment should be reserved for patients of the latter class. For these should be provided several types of institution: family placement colonies in the country; institutions for workers; custodial hospitals; protective institutions for dangerous patients. Special facilities should be provided for child psychiatry.

I am now at the end of my review. Although quite extended, each subject could only be dealt with very briefly. I have had to omit mention of many purely clinical studies; likewise of the historical works of Quercy on aphasia; the bio-typological investigations of Dublineau and of Delay, and numerous others. I shall be happy if I have conveyed to you the impression that work in France has gone on, to be sure without the material means and equipment that have made possible such splendid results in your country, but at least with ardor and perseverance.

Believe me fraternally and sincerely yours,

P. COSSA, M. D.,

29 BOULEVARD VICTOR-HUGO,  
NICE.

#### BIBLIOGRAPHY

1. Annales medico-psychologiques, 1939-1946.
2. Report of the Congress of French Alienists and Neurologists, Montpellier, 1942 (Masson & Co.).
3. Publications of Masson & Co.:  
Claude and Rubenovitch. The biological therapies of mental disorders. 1940 (336 pp., 84 figures).  
Cossa, Bougeant, LeCocq and Grinda. Neurological and Psychiatric Treatment. 1945 (614 pp., 107 figures).  
Delay. Electroshock and psychophysiology. 1946 (170 pp.).  
L'hermitte and J. de Ajuriaguera. Psychopathology of vision. 1942 (148 pp.).  
Piret. Studies on collective intelligence tests. 1945 (296 pp.).  
Roger. The elements of psychophysiology. (In press. 430 pp. with figures).
4. Publications of Bailliere:  
Delmas-Marsalet. Electroshock therapy and the dissolution-reconstruction theory. 1942.  
———. Electroshock and the new therapies in neuropsychiatry. 1946 (376 pp., 46 figures).
5. Publications of Maloine:  
Lapierre and Rondepierre. Contribution to the physical, physiological and clinical study of electroshock. 1943.
6. Publications of the University Presses of France:  
Baruk. Moral, experimental, individual and social psychiatry. 1945.  
M. Cave. The paradoxical work of Freud. 1945.  
Delay. Dissolution of memory. 1942.  
Delay. Disturbances of memory. 1943.

## ALUMNI APPRAISAL OF PSYCHIATRIC EDUCATION<sup>1</sup>

WILLIAM C. PORTER AND HENRY A. DAVIDSON<sup>2</sup>

Brentwood, N. Y.

Our thesis is that the real yardstick of undergraduate psychiatric training may be expressed as: How does it help the physician in practice? By methods described in detail in our full report, 412 medical officers graduated from 69 of the 78 approved medical schools of North America stated what, in their opinion, was wrong with their undergraduate courses in psychiatry. The vast majority of the respondents were graduated from medical schools since 1940.

More than half the students complained of under emphasis on treatment, and 58% of them that the treatment methods suggested did not seem (to them at least) to be practical. The number one grievance however was that they did not see enough psychoneurotic and "minor" (non-psychotic) cases. As will be indicated below (in the comments) many of the participants complained that nothing that was taught in medical school prepared them for the fact that the general practitioner's daily office case load included many psychiatric problems. More than half the students (59%) registered a grievance about inadequate follow-ups. The instructors mentioned the importance of the "longitudinal sections" but teaching methods were such that they actually saw patients only in "cross section" and had no chance to see what time or treatment did to those patients.

A large number of the officers in addition to checking the questionnaire, made supplementary comments. I will repeat a few of them.

*Category 1.*—These remarks may tell more about the officer checking the questionnaire than they do about the courses. However, these doctors themselves are products

of our medical education and the remarks thus seem relevant. Samples:

a. "No one was ever kept from graduating in our school because he flunked psychiatry. This weakens respect for the specialty."

b. "Psychiatry is only applied common sense. Why do they teach it in such fancy verbiage?"

c. "There is no way to measure a man's mastery of psychiatry. Examinations don't do it. Whether you pass or flunk does not depend on studying. That makes psychiatry different from any other subject in medical school."

d. "In our school, psychiatry was too easy to pass. It was a cinch course. It was quietly ridiculed by the highly influential professors of surgery and medicine. Suggestible students were thus influenced to adopt the same attitude."

*Category 2.*—*Laments on the inadequacy of clinical material.* Emphasis here was particularly on the small number of non-psychotic patients made available. Examples:

a. "There was no outpatient department for psychoneurosis in my medical school."

b. "Clinical contacts with patients were far more meager in psychiatry than in any other specialty."

c. "We had no outpatient department; the only clinical specialty without such a department."

d. "Psychiatry cannot be taught from books but only from handling patients. Yet patient-contacts are fewer here than in clinical subjects that you can learn from books."

e. "At ZF there was very little case material in the psychoses."

f. "The course was mostly lectures; it should have been mostly work with patients."

g. "Too much talking by teachers, not enough by the patients."

h. "The lectures were interesting but unsupported by illustrative case material. I

<sup>1</sup> Read at the 102nd annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

<sup>2</sup> Respectively: Colonel, Medical Corps, U. S. Army and Major, Medical Corps, A. U. S. School of Military Neuropsychiatry, Mason General Hospital, Brentwood, N. Y.

heard about hysterical convulsions but never saw one. They lectured on phobias but gave us no chance to interview a patient who had one."

i. "The only psychiatric cases we saw were in psychopathic wards or in state hospitals; never in general medical or surgical wards. Yet there's where the real neuropsychiatric material, comparable to office-practice, will be found."

*Category 3.—Remarks referable to the personality of instructors.* No item covering this appeared in the original questionnaire. Yet a surprising number of comments touched on the personality or skills of the instructors. Samples:

a. "The psychiatric department had the poorest instructors on our faculty. The trustees emphasized certificates, books written, board diplomas held, and society memberships, rather than teaching ability, when it came to selecting instructors."

b. "Professors of psychiatry talk too much, do too little."

c. "So many of our instructors were queer ducks, that we got to think you had to be queer to go into the specialty."

d. "The subject could be presented dynamically. It wasn't."

e. "Psychologists, social workers, and public health people gave us better insight into psychiatry and mental hygiene than our MD instructors did."

f. "Asked for further explanations, one instructor said: 'We teach you enough so that you can tell when your patient needs a psychiatrist. Then you send him to one.'"

g. "At ZG there was a general feeling that psychiatrists were all screwy."

h. "Here's a suggestion: Let psychiatry be taught by normal people."

i. "Queerness of the psychiatrist on our faculty produced an unfavorable student reaction."

j. "At XT our instructor was primarily a neurologist and certainly not a psychiatrist."

k. "At XR the instructors simply didn't have the ability to make you interested enough to listen to their completely foreign subject. Our parasitology instructor, by contrast, made his material interesting. Why can't the psychiatrist do that with his inherently more interesting subject?"

*Category 4.—Comments on doctrine:*

a. "Our approach was exclusively Freudian."

b. "YQ totally ignored Freud."

c. "We were warned against psychoanalysis at our school."

d. "Psychobiology was taught to the exclusion of all other concepts."

e. "An intense longing for an organic explanation of everything—psychodynamics were ignored."

f. "We had numerous instructors at XM and they used varying terminology and had varying ideas. What was 'tension' to one teacher was 'anxiety' to another. For that matter, what was gospel to one, was anathema to another. I respect academic freedom, but it is all very confusing."

g. "At XG psychiatry was divorced from the basic sciences and from the practice of medicine."

*Category 5.—Comments on content:*

a. "At ZR students never interviewed or saw therapy."

b. "Emphasis was never on what the general practitioner would see or could do."

c. "Psychiatry was not pictured as intimately tied up with all medicine and indeed, all behavior. Instead it was offered as something foreign, with which we need not have to have any contact."

d. "We needed more emphasis on psychosomatics and on the relations of psychiatry to medicine generally."

e. "At MD psychiatry concerned itself with psychotics, and we never saw neurotics."

f. "We badly needed more emphasis on the social and economic aspects of emotional disorders."

g. "Too much emphasis on incurable cases."

h. "At YQ, time was wasted in the chronic mental wards, emphasis being on 'types' not on clinical psychiatry."

i. "Our preclinical material in psychiatry was devoted to conditioned reflexes, the learning process and the amoeba."

j. "Can't we stress the scientific 'reality' of psychiatric concepts and functional complaints? Most medical students now you know still get the idea that these complaints are unreal. Even though the instructor says

otherwise, he (and most other doctors) *acts* as if the complaints were imaginary."

k. "I had to pick up all my psychiatry in residencies. Our medical school faculty has a state hospital orientation to psychiatry with under-emphasis on minor disorders. When we got through with medical school, none of us had any idea of what in the world to do with a common, garden variety of neurosis.

l. "We should have more stress on psychosomatics."

m. "When the dynamic processes were originally described, we students got to feel that we ourselves must be neurotic. Later we learn that the mechanisms we had were normal."

n. "Only the bizarre, extreme, or humorous manifestations of the psychoses were brought out."

o. "There is scorn for practicable everyday office methods."

p. "Why don't they emphasize preventive psychiatry? I know it would mean working closely with social or governmental agencies, but why not?"

q. "Nothing in our school prepared me for the fact that many psychiatric patients would be treated at home or office, not in an institution."

*Category 6.—Comments on the attitude of non-psychiatrists:*

a. "Our school teaches enough psychiatry, but when the student tries to apply it in medical or surgical clinics, or as an intern, he is squelched, laughed at, or discouraged by the older 'more practical' doctors."

b. "Psychiatry is important enough to be on the same footing as medicine or surgery. Apparently school officials don't want it that way."

c. "Other departments show hostility to psychiatry."

d. "Other professors make fun of psychiatrists."

e. "Medical-surgical teachers should have told us about personality factors when they talked of peptic ulcer or hypertension. Instead they jeered at any mention of emotional factors."

f. "Psychiatry is so played down in the school schedules that most students feel justified in making a joke of it."

g. "At XT psychiatry was given from 5 to 6 p. m. the worst hour of the day."

h. "The psychiatric lectures at ZF were relegated to the after lunch hour when students were sleepy, and even professors seemed disinterested."

i. "It is taught, scheduled and looked-on, as a trivial course."

j. "The matter may be summed up in a single phrase. Seventy percent of the patients in the practitioner's office present emotional disorders. But only 1% of medical school time is devoted to training the student for this 70% of his work."

k. "Psychiatry . . . was quietly ridiculed by the highly influential professors of surgery and medicine. Suggestible students were thus influenced to adopt the same attitude."

*Category 7.—Comments on method:*

a. "The psychiatrist should accompany the medical chief on his ward rounds, and thus show us the interplay or emotional and somatic factors."

b. "In my time (1928-1932) at YK the course consisted of a series of lectures haphazardly presented. It left us with the impression that it was a bunk course not related to clinical medicine."

c. "Psychiatry worked this way in our medical school hospital. We excluded organic disease, organ by organ. When the chart was thick with negative reports, the patient was called a neurotic and transferred to a corner bed for phenobarbital. The psychiatric service is then called in. Result: one more sheet on the chart, 3 paragraphs of description and a label."

d. "We had to sit by while the instructor did the interviewing. Practical methods of history-taking, diagnosis, and especially treatment, were not taught at ZT."

e. "What they should do is start working with outpatients, who are mild cases, like what we get in private offices. Instead, they start with crazy people and work backwards."

f. "If they never show us recovered cases, we naturally feel that psychiatry has nothing to offer in way of therapy."

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peat the same material. No overall organization in the department."

*h.* "No effort was made at YZ to 'sell' the students on the importance of psychiatric orientation to daily practice of medicine."

*i.* "At XE presentations were theatrical rather than clinical."

*j.* "At ZT students don't get the opportunity to work-up, much less follow-through, on actual patients."

*k.* "Psychiatry is taught as an isolated specialty, not correlated with other branches of medicine."

*l.* "Every community has good mental hygiene clinics with lots of non-psychotic cases. Why don't schools use them?"

*m.* "What was wrong with our course? Organic orientation, poor teachers, poor clinics, no treatment. More time must be devoted to psychiatry; and with students in smaller groups. Interviews should be observed and analyzed, if necessary through a one-way screen or sound records. Why not movies to illustrate interview and therapeutic technics? Always the aim should be—what weapons can the general practitioner use? This should take precedence over nomenclature, fancy dynamic theories and metaphysical treatment ideas."

*n.* "Follow-up of a psychiatric patient is practically impossible in medical school because students do not remain on a neuropsychiatric clinical service for more than a few weeks."

*o.* "In medical school, when a case is discussed, the therapeutic possibilities are dismissed with the single magic word: 'psychotherapy,' with no further elaboration."

*p.* "In our school, the time allotted to psychiatry was considered an hour of relaxation; or at best a gallery where morbid curiosity could be satisfied."

*q.* "Psychiatry is a bull course. No books, no roll-calls, no quizzes, no patients assigned."

*r.* "From the way they teach it, you'd never suspect that minor psychiatric disorders were common in daily practice."

*s.* "The Army boards are the right idea for teaching. You hear discussion. Couldn't a civilian medical school have a board of instructors to discuss disposition of each case before the class?"

*t.* "Between the didactic lecture and the actual patient is a gap so prominent that I suspect there is no connection. The patient is real. So I assume the lecture material isn't."

*u.* "When professors of medicine present cases, psychiatrists should participate."

*v.* "I suggest that we begin with psychosomatics and use that as a bridge from our organic background to the emotional aspects of disease."

*w.* "Medical training in psychiatry is given upside down. They start with a theoretical, laboratory, philosophical approach first and this lulls the student, anesthetizes him, almost vaccinates him against subsequent clinical learning. They should start with patients, a clinical psychobiologic, psychosomatic approach so that students would actually see the patients as real human beings not just carriers for complexes and conflicts. Let the theoretical explanations come later."

#### *Category 8.—Comments:*

*a.* "At YC there was inadequate correlation with other medical sciences. There were few opportunities to see cases or talk to patients. At no time were we presented with a practical survey of treatment technics."

*b.* "There was a clear concept of psychiatry as a whole, but no methods of therapy were suggested at ZG. Clinical facilities were simply not utilized. Pedagogy was deficient because our teachers lacked skill in lecturing."

*c.* "Psychiatry was considered a 'crap' course at XS; it was understood that it was only a filler. It was not correlated with neurology even. It was taught by a part-time instructor who liked the idea of being a professor."

*d.* "You lose ground during your internship, because the average civilian hospital has no neuropsychiatric service really, or at best, a belt-line for committing patients rapidly to state hospitals. Nothing comparable to the serious study facilities available in the medical and surgical departments."

*e.* "Trouble at ZR was: inadequate clinical material; no correlation with general medicine; and neglect of 'lesser' psychiatric syndromes with over-emphasis on the psychoses."

## CONCLUSIONS

1. Physicians, on the whole, are not satisfied with their undergraduate courses in psychiatry. This is concluded not only from the number of grievances but also from the comments. Since only adverse criticisms were listed, it might be argued that the mere piling up of more and more hundreds of returns would be meaningless since if the questionnaire had listed only favorable comments for checking, we could have accumulated a long list of desirable characteristics. But in writing the supplementary comments, the participants were free. Here is how these comments shaped up.

Of the 412 officers, 162 or 40% made comments.

Of the 162 comments, 12 were favorable, and 150 (or 93%) were unfavorable.

(More striking, but perhaps less valid is this: Of the 412 officers, only 12 thought that their courses were good enough to warrant defensive comments; that is only 3%. And 97% did not feel that their undergraduate courses justified any favorable comment.)

2. Constructive suggestions for the improvement of undergraduate training in psychiatry may be drawn from two sources: (1) The correction of the indicated grievances, and (2) Affirmative suggestions made by the participants in their comments. Consolidating these two sources, the following constructive suggestions seem justified:

*a. With reference to clinical material:*

(1) More patients should be presented. (2) A higher proportion of the case-material should be nonpsychotic. (3) Out-patient departments for nonpsychotic patients should be set up and more widely utilized. (4) Lecture material should be correlated with the cases available.

*b. With reference to the instructors:*

(1) Teaching skill should count more than it apparently has in the selection of faculty members, even if it means selecting teachers with fewer nominal honors; (2) A certain amount of normalness of outlook, apparent common sense, and enthusiasm for psychiatry should be expected of the teachers and should be a significant factor in instruc-

tor selection; (3) Instructors should identify themselves with the other members of the clinical faculty. Thus, selection of doctors from isolated hospitals or sanatoria should be avoided in favor of practitioners identified with the local medical community; (4) Instructors should have rich contact with the peripheral disciplines of psychiatry, such as public health, social work, psychologists and the like; (5) Instructors should be proud and conscious of the fact that they are doctors of medicine so that their identification with medical practice on one hand, and these peripheral disciplines on the other, may make it possible for them to serve as the bridges between the somatic and social aspects of psychiatry.

*c. With reference to doctrine:*

(1) In the early stages of psychiatric teaching, conflicting doctrinal theories should be avoided, but (2) No doctrine should be dismissed as nonsense (a number of the students complained that the Freudian theories were made to seem repulsive as well as untrue: result was, not avoidance of psychoanalytic doctrine by these students, but apparently a contempt for their instructors). (3) In later stages of instruction, a certain amount of eclecticism appears to be healthy. (4) Source material of all doctrines and facets of psychiatry should be made available.

*d. With reference to content of the teaching program:*

(1) More time should be provided for presentation of case material (see *a*, above); (2) More emphasis should be placed on the utilization of the psychiatry in daily practice, even if it means less emphasis on the more esoteric phases of the specialty; (3) The overlap of psychiatry with medicine at one end and psychology and social-science at the other, should be recognized and places found in the curriculum for adequate stress at these margins; (4) Less emphasis should be placed on the psychoses, more on the nonpsychotic syndromes; (5) More, much more, stress should be laid on therapy, with particular emphasis on office procedures; (6) Space and time should be found for preventive psychiatry and mental hygiene.

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*e. With reference to the medical school as a whole:*

(1) Psychiatry should start earlier with attention being directed (a) To simple psychosomatic mechanisms and (b) To variations in normal behavior; (2) A larger share of the medical school program as a whole should be given to psychiatry; (3) Effort should be made to indoctrinate other departments with psychiatric concepts, at least to the point where internists, surgeons and obstetricians do not ignore or jeer at the emotional aspects of disease in their specialties; (4) A competence in psychiatry should be required for graduation to the extent that competence is required in the other departments.

*f. With reference to teaching methods:*

(1) Methods should be worked out for the follow-up of cases which have been presented for diagnostic demonstration, so that students may learn something of the effects of time and treatment; (2) Better use should be made of mental hygiene clinics in the community; (3) Better liaison should be established with social agencies, psychologists and correctional institutions; (4) Students themselves should be given much more opportunity to interview patients; (5) Methods of therapy should be more often and more widely demonstrated; students should have a chance to hear therapeutic interviews, for instance, even if only on phonograph recordings or through sound films; to see demonstrations of shock therapy, hypnotism,

narcosynthesis, group therapy, etc.; (6) Psychiatrists should participate in medical ward rounds and contribute to discussions in medical clinical conferences; (7) An active openward (nonpsychotic) psychiatric service should be part of every medical school hospital; (8) Better use should be made of out-patient departments in psychiatry; (9) Lecture material should more often be supported by case presentations; (10) The suggestions made under *d* (content of program) should be implemented by suitable teaching methods; (11) Recovered patients should be presented, both to overbalance the general therapeutic pessimism of psychiatry, and to serve in group therapy; (12) Some agreement should be reached among various instructors as to differences in doctrine with a view to avoiding suppression of academic freedom at one extreme and the confusing conflict of theories at the other; (13) Methods utilizing text-books should be prescribed, and their use verified, or factual reference material should be furnished in some other way; (15) Psychiatry should be taken as seriously as any other course in the school with reference to examinations, roll-calls, study assignments, etc., and; (16) Discussion of diagnostic possibilities, treatment technics and mechanisms, by members of the faculty (students participating or at least attending) should be part of case presentations. More than one instructor should participate in each discussion.

## PSYCHIATRY IN MEDICAL EDUCATION: THE TEACHER-CHARACTERISTICS AND QUALIFICATIONS<sup>1</sup>

JOHN C. WHITEHORN, M.D., BALTIMORE, MD.

The teaching of psychiatry has been the subject of numerous conferences and discussions in recent months, and one of the inevitable topics therein has been the consideration of who is to do the teaching. I have noted two general avenues of approach to this topic—one starts from a consideration of the size of the teaching problem, which is immense, and the means of multiplying the number of teachers to come somewhere near meeting this need; the other approach starts from a consideration of where we stand at present in regard to teaching personnel and facilities, and the means by which these can be improved and increased.

The latter manner of approaching the problem has seemed to me the more realistic and constructive, and in approaching the problem in this manner attention falls first upon those teachers in medical schools and associated teaching hospitals. How are these teachers chosen? In general, by the same methods used in selecting other teachers in professional schools—by considering those in good repute, who have demonstrated specialistic competence and some qualifications for leadership. It is expected of such a person that he be able to develop in medical students those psychiatric concepts and attitudes which are basic in medical science and practice, that he be able to lead in the scientific advancement in his field through research and the guidance of research, and that he direct the higher graduate training of specialists. The ideal teacher of psychiatry should have a thorough understanding of a very broad range of facts and principles involved in the practice of psychiatry, and he should have a mastery of a number of professional and social skills. This range of knowledge and skill is exceedingly wide. Since it happens to be a fact that psychiatry, in most places, does not now enjoy the prestige which its importance in medicine and in

the social order warrants, it is also hoped and expected that this teacher of psychiatry should be a good propagandist and salesman.

There are no paragons who satisfy all these requirements. Practical compromise is necessary, and a choice has to be made as to which qualifications shall be considered paramount. In a practical world this choice varies with the needs, or the realization of the needs. The decision as to which teaching qualifications are essential depends upon one's conception of the essential nature of the job to be done. Is it possible to make any general statement which is positive and constructive?

I can, at any rate, express my opinion, as a point of departure, or agreement, for further discussion. In my opinion, the paramount general requirement in selecting teachers of psychiatry, at least for the major positions, is the capacity for constructive imagination in the advancement of psychiatric understanding. This is essentially an investigative task of a certain type, and I appreciate that many may have a different opinion as to the present paramount requirement. Some may judge that the present demand for the multiplication of psychiatrists calls for teachers skilled in giving extensive didactic courses, rather than in research. This attitude prevails particularly among those who have found, in one doctrine or another, a personally satisfying orientation to their professional work as psychiatrists and who see the teaching problem as essentially the further dissemination of this body of doctrine.

I would emphasize the fact, however, that psychiatry is at present in a stage of transition. It becomes increasingly a science of psychodynamics, of the understanding of human motivation and the better utilization of human assets and resources, rather than being so exclusively preoccupied as heretofore with psychopathological phenomena. I express this thought not merely as an enthusiastic hope, but as a statement of actual

<sup>1</sup> Read at the 102nd annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

progress. As I conceive it, therefore, the most significant part of teaching psychiatry today is to engage the oncoming generation in this forward endeavor, with whatever insight and understanding is at present available, rather than merely to train in current techniques, classifications and practices.

A thoughtful consideration of the foregoing statements will reveal an attitude on my part, prompting these statements, which may not be very popular in this particular meeting. What I have said implies a somewhat disparaging attitude toward the present state of psychiatric science, because I stress the paramount need of developing something better to teach as psychiatry. There is risk of being misunderstood and misquoted in my expression of this attitude, for many persons are ready and eager to seize upon any pretext to berate psychiatry; nevertheless, I do wish to express as emphatically as I can the conviction that, at the present state of affairs, teachers of psychiatry should be chosen primarily for their capacity to lead in the development of a psychiatric science basic in medicine, rather than as mere instructors of current formulations.

Out of the experiences and great sacrifices of the war, and the tensions of present uncertainties, there has come to many doctors an appreciation of the rôle of emotional factors in illness, and with this appreciation a strong desire for further understanding and skill in dealing psychodynamically with such problems, and a considerable impatience with the static conceptions which many remember vaguely with distaste as the substance of so much pre-war psychiatric teaching. Emotional malfunctioning is widely recognized now as one of the major aspects of medicine, and it is my feeling that the teaching of psychiatry demands now, more than at any other time, perhaps, that the teachers be prepared and qualified to guide this surge of interest in an investigative spirit. That is the fundamental reason why, at the present time, I put such a premium upon the capacity for constructive imagination as a qualification for teachers of psychiatry.

By what signs and symptoms is this special qualification to be discerned in the potential teacher? It is the common practice to

evaluate these creative capacities by compiling a bibliography of one's publications and evaluating this quality in the author. This implies that one has published some investigative work. This is one of the reasons why in every training program one should invite and encourage investigative work. Much may be inconsequential, but talent will be brought to expression and to growth.

The teaching of psychiatry is a team-work proposition, because the variety of knowledge and skills which must be presented and exemplified to the trainee exceeds that likely to be possessed by one person; hence the teaching department must include those having supplementary talents. Just as the team has become the practical means of psychiatric service, so the teaching team is the means of gaining the required combination of qualifications. The aim is not to catch a young and impressionable trainee and teach him all those skills and bodies of knowledge, which as I have said no single teacher can be found to possess. The aim in building the teaching team should be to provide a fair range of stimulation and guidance from which all will gain a broad view and each gain further profit according to his talents and interests.

In a period of rapid expansion, such as the present, there is an inevitable tendency to standardize subject-matter and methods for the mass production of psychiatrists. This problem sets the stage, actually, for the present emergency in psychiatric training, and my preceding remarks may have seemed to some to be beside the point because not directly concerned with this mass-production program. For that purpose, the primary considerations are not maximal effectiveness but minimal tolerances. The Veterans Administration, in particular, seeing a large and expanding psychiatric service problem, have been trying to shape up educational programs which would train considerable numbers, and at the same time attract the desirable men. Since desirable men are likely to be those attracted by a good educational program, the policy enunciated by General Hawley, to develop teaching hospitals in the service for veterans, and to link these closely with medical schools, seems eminently sound and logical. One of the major difficulties is personnel, for it is just in those university

teaching hospitals called upon for this service that a heavy expansion of training program has already recently occurred to satisfy so far as possible the obligations to physicians returning from military duty. I venture to say that every university hospital training center in psychiatry is already bursting at the seams with young doctors back from military service, using the available clinical material to the utmost and requiring the time and effort of the available teaching team. New teaching personnel is urgently needed to implement any further expansion in training.

Since the specialty Boards have been established, and the certificate of the American Board of Psychiatry and Neurology has come to be one of the goals of the young psychiatrist's training, it has been natural to assume that such a certificate is an appropriate prerequisite for a teacher, particularly in a large scale organization such as the Veterans Administration and in the large state hospital systems, where a rather formal statement of qualifications is wanted. The meaning and value of this particular qualification—the certificate of the Board—rests in the ultimate analysis upon the policies and practices of the American Board. It seems appropriate, in order to avoid some misunderstanding and disappointment, to call attention to the fact that the Board certification has never been intended directly to certify to teaching qualifications, but only to indicate a safe level of specialistic competence. Here again the Veterans Administration has made a shrewd move in establishing Dean's Committees and asking them to make selections of attending and consulting specialists, thereby gaining the guidance of a group of persons accustomed to selecting teachers.

One of the most interesting current experiments in the teaching of psychiatry at the graduate level is at Topeka, and one of the most interesting features of that experiment in dealing with large numbers of trainees lies in the intensive testing and instruction at the beginning of training. The central core of graduate psychiatric training has consisted, I think, in the supervision and guidance of clinical work, which proceeds usually at a slow pace which permits growth in professional competence to proceed in indi-

vidually varying patterns, with much modifiability in the individual's reading program and grasp of theory. In this pattern the teacher qualifications are insight, sympathy and versatility to adapt to the individual trainee's needs. It seems possible, however, that a larger amount of intensive didactic instruction may be integrated into the training program quite early. By a combination of these methods, a well integrated teaching team may be capable of more effective mass-production than we have usually assumed to be the case, thus magnifying the importance, so to speak, of black-board talents for teaching, whereas we have tended in the past to depend most upon bed-side teaching qualifications. The Topeka experiment will be watched with great interest to gauge the effectiveness of such intensive instruction.

The principal training ground in the past for young psychiatrists has been the state hospital. As Dr. Forrest Harrison has indicated elsewhere, the present aspirants for psychiatric training have shown little desire for state hospital training—a situation which may perhaps increase the pressure to improve such training. There is little doubt that one of the weakest points in the state hospital training lies in the enforced preoccupation with the psychoses and the comparative neglect of the neuroses, and that another weak point lies in the failure to make actual provision for adequate supervision of training. Just doing the routine clinical work is not enough, nor is this adequately supplemented simply by arranging administrative and diagnostic case conferences. The clinical directors in state hospitals are in the logical position to direct the training program there. Aside from the heavy load they carry, they are also sometimes handicapped because their own training has been one sided. For the sake of their teaching effectiveness, especially in the field of psychodynamics, which is destined to be a cornerstone of social psychiatry and practical mental hygiene, these teachers should have out-patient services in which to teach. Here again proximity to medical centers, and close association therewith, would increase the teaching effectiveness, not only through the contacts thereby made possible, but also because clinical di-

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rectors better qualified as teachers would there be available, and would probably work at that teaching task more happily and effectively than in rural isolation.

In bringing this brief discussion to a close, rather than to a conclusion, I presume you share somewhat in my own feeling of frustration at the lack of a specific and practical formula for the selection and multiplication of teachers of psychiatry, according to a spe-

cific pattern of characteristics and qualifications. I wish to reiterate, in closing, what seems to me the most significant point in the qualifications for teaching psychiatry at the present time—namely, that the teacher possess, in addition to good repute and professional competence, the capacity for leadership in the progressive and constructive use of scientific imagination in building a more adequate science of psychiatry.

## WHAT SHOULD BE TAUGHT

NOLAN D. C. LEWIS, M. D., NEW YORK, N. Y.

Outstanding among the questions that come to mind concerning psychiatric education are, first, what are the defects and difficulties interfering with the teaching of this subject in the medical schools? Second, what reforms are necessary to overcome these obstacles? And, third, what methods should be adopted to establish the ends desired?

Foremost among the difficulties interfering with teaching as expressed by those psychiatrists connected with the majority of medical schools are lack of or seriously limited funds, too little time in the curriculum, and limited personnel. These hazards cover a lot of ground to say the least and have so far proved to be most difficult to resolve, but it is possible, if not probable, that we can do a better job than we are now doing with what little we have. Although psychiatric teaching is improving and is efficient in several centers, it is not so in the majority, and I feel certain that one can say without fear of contradiction that general physicians are not well informed in psychiatric principles, in fact, far less informed than in any other branch of medicine. Moreover, the failure of general hospitals to deal with the simple or mild mental problem or complication, often needing little more than some applied common sense, is conspicuous and often pitiful.

Even in the best psychiatric teaching centers the medical students' reaction to psychiatry may and often does constitute an obstacle. Among the various types of attitude one can detect in the student body are the following:

1. The student who is really interested in the subject, goes in for it, and learns what is taught and even something in addition.
2. The student who is interested and desirous of information but who is puzzled by what seems to be the complexity of the subject, feels that he is missing something, and finally fails to get hold of the basic principles.
3. The student who does not take the course seriously, who is even amused by it, but feels that he should or has to learn enough to "get by" with the examinations.

4. The antagonistic student who cuts class periods, who criticizes everything that is done, and often flunks the course, particularly in those schools where psychiatry is still a subordinate branch and where one can still graduate without a passing mark in this subject.

5. The student who purposely or consciously neglects the subject because he has decided to become a surgeon or an internist, and thus "will have little or no use for it anyway."

Therefore the real significance and real meat of the subject will not reach many of them unless such obstacles are constantly in the minds of the instructors and definite plans made to deal with them. To many students the subject does not seem practical because in their minds no correlation is evident between the course in psychiatry and the other courses. There is no common ground. This separation of the subjects may not be intended at all by the instructors but the students seem to have the tendency to an automatic development of two compartments of thinking, nevertheless, and thus the psychiatrist becomes segregated and is looked upon as the one who takes over after no one else is able to discover anything wrong with the patient.

Although as instructors we are pretty well aware of the situation we do not do enough preparatory work aimed at the elimination of the student's layman concepts which block his progress; the student when he comes to us is usually handicapped by the concept of "insanity" that he acquired from infancy on, before he entered medical school. The layman ignorantly assumes that his own ideas on mental disorder are on much safer ground than his knowledge of physical disease, and even now ignorant jurymen pass glibly on "sanity" and "insanity." The average student is loaded also with other related misconceptions such as that all people are either sane or insane; that all psychiatric patients are either "crazy," noisy, destructive or

dangerous, or at least may become so at any time; that they differ from each other only in degree; that mental disorder is due either to heredity or personal misbehavior and is therefore a family as well as a personal disgrace; that all mental disorder is incurable; and that a "nervous breakdown" is not mental but is a disorder of the nerves or nervous system.

These attitudes and concepts are widespread and no great dent has been made in their ranks despite the attempts we have made to disseminate knowledge to the contrary to correct them. We must work more intensely and directly on our students with plain words and not merely incidentally nor by implications dropped unsystematically.

Procedures cannot be standardized very well as every teacher will have his own individual way of doing the job. There will always be those who can teach inspiring, systematically and efficiently, and also those who cannot, regardless of strong efforts and the desire to do so.

With many of the limitations and the many aspects of the subject, some of which are controversial, in mind, I should like to comment more specifically on some objectives and principles of psychiatric teaching and on what should be offered to the student.

Psychiatry is a major branch of clinical medicine with its fundamental principles, now known as "psychodynamics" functioning as a basic science contributing to all other divisions of human medicine, in the same sense that biochemistry, pathology, anatomy and physiology serve as foundations contributing to all branches of clinical medicine. Psychiatry can no longer function properly as a minor specialty in the medical curriculum.

Whatever is taught should be presented in a clear concise way, well organized, and not in a technical involved terminology. Students prefer to be presented with classified knowledge with emphasis on diagnosis, dynamics, causes, and particularly on treatment. Too many instructors emphasize the rare and what is particularly interesting to them at the time and drift over the more common things with brief remarks. And may I add that psychiatric teachers are not the only

sinner here. It is a too common characteristic of medical teachers. Other instructors do splendidly with their own subspecialty but teach the rest of the topics poorly. Therefore the heads of departments should devote more attention to the correction of this fault, by arranging a program which will not depend entirely upon the individual interests of his assistants but will take them into consideration and utilize them properly.

To preface the scheme of training the medical student in psychiatry I should like to start with:

I. *Premedical Preparation.*—This has some direct bearing on psychiatry. There is at present an inadequate training in the biological sciences in most colleges, particularly in those parts that have to do with human biology and human nature. Those students poorly trained in biology misunderstand many things and are not equipped to do scientific work in general, much less in psychiatry or sociology. Scientific thinking is not easy for those not initiated to it. It does not come naturally like emotional or wishful thinking. Those who do scientific thinking have to go through a severe grind to achieve the technique.

In addition to thorough courses in biology the student should have premedical courses in psychology from some dynamic viewpoint to replace the old psychology of the "mental faculties." A vitalization of the whole field of college psychology is sorely needed.

An understanding of some of the common principles that run like a thread through the web of life should be had before the student ever reaches the medical school. Over 25 years ago my teacher in biology, Professor H. S. Jennings, then of Johns Hopkins University, used to emphasize that something more was required in the study of living beings than a knowledge of the environment, of the chemical constitution and of the physical states of the various substances that go into the composition of the organism. This something else is what is often vaguely designated as organization or integration. The real problem is not to be satisfied with discovering how many structures and functions exist, but to learn as much about the common principles that exist

in them all in preparation for the courses to be presented in the medical school.

II. *Preclinical—First Year Courses—Introduction to Psychiatry—Introduction to Human Behavior.*—In the medical school it is a desirable plan to have a part of the first year course given in cooperation with the department of physiology, with particular attention to the functions of the nervous system in terms of sensory, motor, reflex, secretory and tropic phenomena. Some of the valuable fundamental points for instruction are:

1. The character of transmission: How the nervous system adjusts man and other animals to the environment and how this in turn has fostered the development of the nervous system. Material should be given to point out the special abilities of the organism to respond to kinds and gradations of environmental change, and how man does so with rapid, variable, integrated and especially adaptive behavior patterns.

2. A special introduction to the functions of the autonomic nervous system and how it is dedicated to self-preservation; un verbalized affect or "feeling," emotions and their physiological components, and physiologic and psychologic homeostasis deserve a major focus of attention.

3. The highly specialized functions of the brain as expressed in awareness, attention, perception, memory and particularly the manner in which these participate in the master function of language with its various regulations in personality structure.

4. Integration patterns of reaction with emphasis placed on the mechanism of adaptation as it applies in human affairs and interpersonal relationships.

5. The various elements that seem to be dynamic in the integration of the personality.

III. *Second Year Course: The Study of the Personality.*—During the second year among other things emphasis may be placed on the more specific aspects of the constitution. The constitutional trend in psychiatry usually includes teaching and research based on biology, serology, bacteriology, biochemistry and hereditary transmission. My

own concept of presenting the formative elements of "total constitution" includes a review of heredity, malformations, the diseases of early life, disorders of nutrition, parent-child relationships, family tradition, contact persons and cultural background.

Although the second year student has had little or no experience in clinical medicine he is in the midst of his heavy year in pathology. Therefore it is well to introduce him to some clinical psychiatric material having demonstrable pathological lesions. This, if done properly, constitutes the real closure of the gap (that exists in the student's mind) between somatic and psychologic diseases. Definite organic changes in the central nervous system such as nutritional disturbances, endocrine deficiencies, polyneuritis, other inflammations, degenerations, senile and arteriosclerotic reactions, neoplasms, and the various types of neurosyphilis when they are accompanied by psychoses or have precipitated mental changes constitute valuable teaching material since the instructor can demonstrate the pathology of the lesions and of the personality types in the same individual and setting. Organic speech disorders and those of locomotion accompanied by psychological distortions are also excellent for introductory clinical courses. Special laboratory and clinical procedures such as the study of eye grounds, spinal fluid and encephalography help to fix certain disorders in mind. Also, as an aid in developing a desirable attitude some of the classical toxic states may be introduced in the second year, *e.g.*, the alcoholic reactions and those of toxæmia of pregnancy. Deliria with fear, clouding of consciousness, hallucinations and delusions, along with the physical and laboratory evidence of disease or chemical components are valuable introductory clinical material with few or no gaps showing between them and the problems of general medicine of which they constitute a part.

Some time should be devoted in the second year to teaching the development of the personality relative to mental mechanisms. When this is well done and kept at the practical level it is excellent preparation for the heavy clinical year to follow. It should include the role of the constitutional and

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emotional equipment, the development of the libido, the life periods of special importance, the ego construction, object attachment, conscious and unconscious drives, the pathological effects of emotional conflict and capacities for adaptation and adjustment.

In lectures to beginners in psychiatry we as specialists are liable to assume that the student knows more than he does. We must guard against this tendency religiously, or we find ourselves slinging in terms and concepts that are as yet meaningless to the class, particularly when the students have had little if any general clinical experience of any kind. Often when we are a little off guard we slip in terms that have not been defined for the class, and even those that are not too clearly understood by ourselves.

IV. *Third Year: Clinical Psychiatry.*—In the heavy clinical years the student should be taught how to evaluate personalities, the phenomenology of the various mental disorder syndromes, and the basic psychodynamics in force in order to afford him as much understanding as possible of the factors contributing to mental illness.

In teaching the subject to medical students, most of whom will not become specialists in the subject, the orientation should be pointed into the general practice of medicine rather than into the practice of psychiatry as a specialty.

The study of the concept of the "total individual" seems to be a didactic attitude to many students and physicians instead of something for practice in the clinic. The average doctor does not even know that when a patient comes to his office accompanied by a companion, unless that patient is a child, an aged feeble person, or one acutely ill requiring physical support, that nine times in ten the mental situation is foremost in the problem regardless of the nature of the etiological factors.

In general medicine as well as in the specialties a very high percentage (50-70) of all patients treated have "functional" disorders while practically all "organic" reactions or illnesses from lesions express mental symptoms ranging from mild anxiety and fear of pain to confusion and active delirium.

The student should understand from the

beginning that the old concept of mind and body is now considered unsound and that the patient with his skin, bones, bodily organs, brain, emotions and life experiences constitutes an entity to be studied as such in action. He should be taught that certain primitive biological needs are characteristic of all individuals and that there is an intimate relationship or correlations between psychological factors and bodily functions that renders collaboration between psychiatrists, physiologists and internists essential.

The study of psychiatry brings the student closer to the things amongst which he lives, widens his horizon and intensifies his hold on life. Therefore, any scheme for clinical teaching should begin with familiar events and phenomena, should be related to daily life and should not be taught with a view to making specialists, as this objective should be retained for those who develop a flair for special knowledge. Minute and detailed studies in psychiatry should be made only as a specialization after the student has had experience and when his judgment and sense of relationships have been trained in this field.

It is important to instruct the young clinician in all aspects of the patient-physician relationship. A thorough training in the technique of interviewing cannot be over-emphasized. The psychiatric interview well conducted by an expert will reveal more about a patient mentally and/or physically than any other single procedure or type of examination. This is a bold statement, but one that can be defended and demonstrated by any experienced psychiatrist, who is also well grounded in pathology and internal medicine. Moreover, the student should know that every interview has either a favorable therapeutic or an untoward effect on the patient.

Clinical observation remains the foundation of psychiatric medicine and it becomes an essential discipline if progress is to be made. Students and others in training must be taught to make thorough clinical examinations at the bedside of the patient, in keeping with similar methods used in general medicine.

During the third year lectures and demonstration courses covering the principal re-

action types of psychoses, psychoneuroses and the special problems of children become essential, as well as do conferences in two and clinical clerkships in three hour periods with their opportunities for informal discussions with the instructors who have assigned them suitable cases.

The teaching conference should rarely be less than two hours long. Here there should be allowed, a free expression of opinions to give the student experience in thinking and discussing. In most teaching clinics and conferences they are not given a sufficient opportunity to participate. I find that students in these situations are capable of asking some very challenging questions concerning the behavior of the patient, the meaning of the content of his speech, the differential diagnosis, and the therapeutic approaches.

Among the topics and types of cases utilized in the psychiatric hospital, in outpatient departments and on the medical and surgical wards one would include as many as possible of the "organ neuroses" and other psychosomatic problems, and stress the application of supportive psychotherapy in general practice. The technique of interviewing and the critical analysis of information gained from patients by the student should be constantly in the foreground for possible improvements and for advice from the instructor. In these clinical clerkship hours the student should become familiar with and have experience in the thorough working up of case histories from the psychiatric viewpoint.

Whatever procedure is followed and taught in history taking technique it should go without emphasis that it should be well organized, systematic, as accurate as possible, orderly chronologically and include those psychobiographical events that have a bearing on the lifeline, growth, development and adaptation of the patient concerned. These topics need not be enumerated here.

When once the history taking technique is learned through application to cases, perhaps not too much is gained by prolonging it. Some of the hours available might be devoted to reading selected references rather than to prolonged history writing "into eternity." Much of the psychiatric history as taken in some places may be highly impor-

tant in research or to the thoroughgoing specialist but it seems to the student to be a waste of time and makes a heavy drain on his interests.

The phenomenology or the descriptive features and the differential diagnosis should be clearly presented. The diagnosis of mental disorder or "psychoneurosis" by the exclusion of somatic diseases is rarely justified. Diagnosis is possible on the basis of positive evidence in the great majority of cases, and the student should learn to do it on positive findings. This statement is not intended to discourage any necessary or desirable studies to test the assumptions and conclusions.

Owing to the trend of interests and the recent tendency of instructors to bore into the dynamics and pathoplastic environmental and social features to the neglect of good clear descriptions of the disorders, many medical graduates speak glibly of "complexes" and "inferiorities" but lack skill in differential diagnosis such as students have always wanted and will rightly continue to demand.

Both phenomenology and "depth" psychology should be taught. If the unconscious factors are omitted or slighted the students will be poorly trained and experience has shown that such are no match in a clinical situation for those well oriented and properly acquainted with the functions of the unconscious.

There should be a systematic presentation of the history, fundamental concepts and principles of psychoanalytic thinking and practice, and of its evolution and place in modern psychiatry and sociology with emphasis on the theory of instincts and of ego psychology. Because of its unique value for the understanding of human behavior it belongs in any basic training program.

*V. Fourth Year Training—Additional Clinical Experience: Practical Applications.*—By means of lectures and clinics the fourth year student should be informed on the practical management of all usual types of cases and about places where patients may be treated; namely the approach, study and treatment of the patient when visited in the home, when seen in the physician's office, and when seen in the clinic, and also,

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of course, the different types of hospitalization facilities. There should be an evaluation of the different therapeutic procedures and methods, with particular attention to the emergency problems which he will have to meet when he is out in the community in practice.

During the fourth year the student should be made acquainted with certain practical aspects of the mental hygiene laws, including the various ways of admitting a patient to a hospital for mental disorders, the legal and property rights of patients, the medical and legal concepts regarding the so-called "criminal insane," and particularly the medico-legal practices regarding accident and compensation neuroses with their attendant court work features.

In times of war there are certain special military psychiatric problems that have to be brought in for consideration. Here traumatic neuroses and psychoses from head and other injuries, post-traumatic constitutional reactions, conversion states, acute flurries and malingering are among the disorders, the wartime study of which has contributed to our understanding and treatment of similar, but sometimes not exactly similar states found in civilian practice.

All the problems in the foregoing paragraphs should be illustrated by clinical material whenever it is available.

Throughout the year additional work can be done on the psychiatric syndromes, in clinical clerkships, on the wards and in the outpatient department.

As a major function of the medical school the hospital outpatient department is to instruct medical students and interns. It affords during the third and fourth years, an opportunity to observe those cases which are not admitted to the hospital but will be seen in general practice.

Should there be extra hours available elective work may be undertaken. The special focus for elective study can be worked out on the basis of the time, the particular interest of the student, the material and the opportunity for such work in the department.

Before closing, a few additional general teaching suggestions for improvement that apply here and there through all of the medical school years might be offered:

1. More time should be spent in teaching how to examine a patient psychiatrically.

2. More subclinical cases and problems should be demonstrated.

3. A better orientation should be afforded in the pertinent literature—books and references to read during the courses. In many centers this is sadly neglected.

4. More emphasis on the sociological aspects of the subject and on the principles of mental hygiene.

5. A more extensive use of charts, outline schemes, pictures, lantern slides, moving pictures, pathological specimens, and patients for demonstration.

I believe I have indicated the territory to be covered and what should be taught, but I have refrained purposely from stating any definite number of hours, either minimum or maximum, desirable to accomplish the purpose. Naturally the time allotted to psychiatry in the medical schools depends on a number of matters which are the concern of those involved in any particular organization and curriculum plan. We usually need more time than is available in a crowded medical schedule, and therefore we have to plan carefully to expose the student to as much useful information as possible.

#### CONCLUDING COMMENTS

Any "science of life" must deal with life and its aspects as it finds them regardless of the type of manifestations or whether they will submit to a laboratory experiment. Therefore, instruction should be focussed largely on clinical entities, giving only sufficient theoretical background to orient the student in the problems. Good teaching results in a quickened perception rather than in absorption of facts. A medical education for the average student is not completed at the medical school. It is only started there, but the student can develop habits of accurate observation, and the all important "attitude" that is necessary to understand even the elemental problems of psychiatry.

As objectives, students in medicine should be taught two fundamental principles:

1. The concept of man as a reacting entity, as a living being in action, and that therefore mental disorders have a "natural history."

2. That psychiatry is a part of medicine in general, and that psychosomatic problems will confront the physician regardless of his type of practice or special interests.

After four years in the medical school the student should be sufficiently informed in psychiatry to:

1. Recognize the usual manifestations of mental disorders and the common emotional components of physically ill patients.

2. Undertake the practical handling of

such situations, and decide what patients may be treated by the non-specialist, what patients indicate a sharing of responsibility with a consultant in psychiatry, and what patients require immediate and full psychiatric study and control by a specialist.

3. Be alert to their special obligations to do what is necessary to protect the patient, the patient's family, and the interests of society. The rest of it may be undertaken as a specialty in post-graduate work.

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THE GENETICS OF EPILEPSY<sup>1</sup>

WILLIAM G. LENNOX, M. D., BOSTON, MASS.

A genetic influence in epilepsy is not in question, but only the degree of that influence. The remark made by Galen early in the Christian era still holds good, "Always this is to be remembered that no cause can be efficient without an aptitude of the body." How great is this aptitude in epilepsy and how is it to be detected?

Geneticists have been, and are, much more interested in plants and lower animals than in man. Animals have epilepsy and the fact that convulsions, spontaneous or induced, are more common in some animals than in others is a demonstration of constitutional differences. For example, the hair trigger rabbit reacts more readily with a convulsion than the more phlegmatic cat. Also, a difference in "threshold" or susceptibility exists between strains of the same species. For example, audiogenic seizures can be induced more readily in gray Norway than in Wistar Albino rats (1), and in domesticated than in wild rats (2). However, attempts to demonstrate transmission of this trait in the offspring (3) or to determine a Mendelian pattern (4) have not been conclusive. Doubtless, examination of the incidence of convulsions and of threshold to convulsive agents in animals with respect to species and to the structure and organization of the central nervous system, together with attempts to develop epileptic strains, would be rewarding. Little or no study has been made of the occurrence of spontaneous cerebral dysrhythmias in animals of different species and whether such dysrhythmias, if they occur, are transmitted.

Without this help from our animal allies, we must perforce depend on evidence drawn from a study of human material. This means a study of family trees, either individually or as a forest. Every family tree, if examined

twig by twig, would be an epileptic tree, for something like one person in 200 has epilepsy, and a family tree has innumerable twigs. However, twigs carry little weight and most reliance must be placed on examination of the visible lower branches. In other words, how many of the members of the immediate family of the epileptic are similarly affected and how does this number compare with the immediate family of non-epileptics?

From Hippocrates onward, physicians have speculated about the place of heredity in the etiology of epilepsy. In the scores of generations which have succeeded Hippocrates, doctors have continued to speculate—but not to tabulate. Admittedly inherent difficulties of tabulation are substantial. Two of these are: the inexact delimitation of epilepsy (the differentiation from syncope or hysteria, from convulsions of childhood, from a "cured" epilepsy); and the difficulty of gathering truthful information about symptoms which must be kept secret. Any dependable structure of knowledge must be built on the following data:

1. The incidence of epilepsy in various age groups of the general population.
2. The incidence of seizures among the blood relatives of epileptics with attention to possible genetic and acquired factors.
3. The incidence of seizures in those relatives in which the hereditary factor is known, *i. e.*, in monozygotic twins.
4. The incidence of asymptomatic cerebral dysrhythmia in the general population, in epileptics and in the co-twins or other relatives of epileptics.

We shall outline the progress which has been made in these various categories. Stein (5) has reviewed the older literature, most of which is not significant because of the small number dealt with, the lack of control data, or the introduction of clinical entities, like alcoholism, hypertension and insanity, which have no demonstrated "blood relationship" to seizures.

<sup>1</sup> Read at the 102nd annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

From the Department of Diseases of the Nervous System, Harvard University and the Children's and Infant's Hospital, Boston, Mass.

This is number XLVIII in a series entitled "Studies in Epilepsy."

## 1. EPILEPSY IN THE POPULATION

The incidence of epilepsy in the population—a fundamental point of reference—is unknown. Among the near relatives of 1115 personnel of state hospitals 0.66 percent had experienced one or more seizures (5). Figures from the military draft have the virtue of large numbers but the defect of a selected age group and, what is more important, virtual dependence on the draftee's statement for the diagnosis. For want of better data, most writers accept the incidence reported in the United States draft figures for World War I, namely, 0.5 percent (6). The screening out of epileptics who were in institutions, the absence of the child population with its high seizure rate, and the failure of many men to know about or to report their seizures are factors which, if corrected for, would tend to increase the reported incidence. Therefore 0.5 percent is probably a conservative estimate of the proportion of the population subject to recurring seizures.

## 2. INCIDENCE AMONG RELATIVES

There would seem to be no excuse for inadequate information concerning the number of epileptics among the blood relatives of epileptics. The family histories of hundreds of thousands of patients are in the records of institutions, of clinics and of private physicians. Tabulations of small groups have been published, but results cannot be combined to form a worthwhile total because of the diversity of methods used in collecting and in treating the data. Most authors ascertain the percentage of patients who have a "positive" family history, but the extent of the relationship included is variable. The method takes no account of heavily or lightly laden family trees, and "control" information (the percentage of affected families in the general population) is lacking.

For the reasons just stated, we elected to deal with the morbidity not of families but of individuals, the method used in all vital statistics. Sixteen years ago, Stanley Cobb and I distributed 6,000 blanks among neurologists throughout the country and asked them to record on these blanks certain information about clinic and private patients

seen during the following 12 months. The observations which follow deal with the data contained in more than 2,000 blanks. Most of the clinical tabulations await publication. We deal with the members of the immediate family only, the parents, siblings and children of the patient. We determined their number and the incidence of epilepsy in the total and in subgroups.

The 2,130 patients have a total of 12,119 near relatives, whose history is stated. Of these 2.7 percent have a history of recurrent seizures. This means that any given child of the "average" epileptic has about 39 chances out of 40 of being "normal." The incidence of 2.7 percent is approximately 5 times the incidence of epilepsy among draftees in the first World War. Therefore, as stated in the beginning, heredity is undoubtedly a factor in the etiology of epilepsy.

*Comparison With Other Diseases.*—For maintenance of perspective we should compare this five to one ratio with ratios similarly determined for other non-infectious diseases. Unfortunately, this seems a neglected field of interest, and we can note only that on the basis of the proportion of persons with a positive family history, the influence of heredity is about the same in diabetes and in epilepsy, 2 times greater in obesity, and 8 times greater in migraine than in epilepsy (7).

*Genetic Versus Acquired.*—Among the 2,130 patients of this series only 17 percent knew of any blood relative who was similarly affected. Therefore, heredity cannot be the whole cause of seizures. In one patient it might be 10 percent responsible, and in another 90 percent. Study of the histories of epileptics quickly dispels the "either-or" conception of etiology. Too many patients have both a family history of epilepsy or migraine and evidence of acquired brain pathology. Heredity is not a fixed all or none ingredient. Acquired morbid conditions bear a reciprocating relationship to transmitted predispositions, as illustrated by the accompanying diagram (Fig. 1). The smaller the genetic influence, the greater the influence of those conditions which are acquired. Of possible acquired states, those resulting in pathology of the brain, either an-

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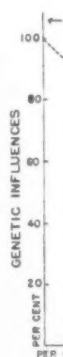


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atomical or physiological, are of most consequence. However, severe damage to the brain may not in itself result in convulsions either in animals or in persons. Professor Lashley, who has mutilated the brains of numberless rats in his maze learning experiments, never observed one with convulsions (8). Kopeloff *et al* (9) found that only certain substances introduced into the brain proved epileptogenic. In patients both the location and the extent of brain injury are

SUGGESTED RELATIVE INFLUENCE OF GENETIC AND ACQUIRED FACTORS IN HYPOTHETICAL CASES OF EPILEPSY

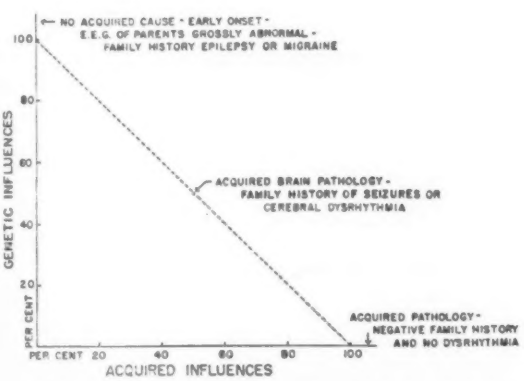


FIG. 1.—Schematic representation of the reciprocal influence of genetic and acquired factors in the etiology of seizures. At the top and at the bottom are patients who might be considered respectively as purely genetic (essential) or acquired (symptomatic) epileptics. The majority of patients, however, would be placed somewhere along the diagonal which represents a combination of genetic and acquired conditions.

important. The proportion of persons who become epileptic as a result of wounds or tumor of the brain may be very high, 50 to 80 percent, a number presumably far above the proportion who are "carriers" of the disorder.

We sought statistical evidence of the relative importance of acquired epilepsy by dividing the 2,000 odd epileptics into two groups—those with and those without a history or other evidence of brain injury which antedated the onset of seizures. In the group having such a history there were 2,714 relatives of whom 1.4 percent were epileptic. Among the 10,152 relatives of the patients without history of brain injury, 3.0 percent

were epileptic (Fig. 2). Therefore, inheritance, as judged by a number of epileptic relatives, is only 40 percent as great in acquired (symptomatic) epilepsy as in genetic (essential) epilepsy. The incidence of epilepsy among relatives, is 3 times greater in the acquired (symptomatic) group of epileptics than in the general population. Therefore, an "essential" or genetic influence is

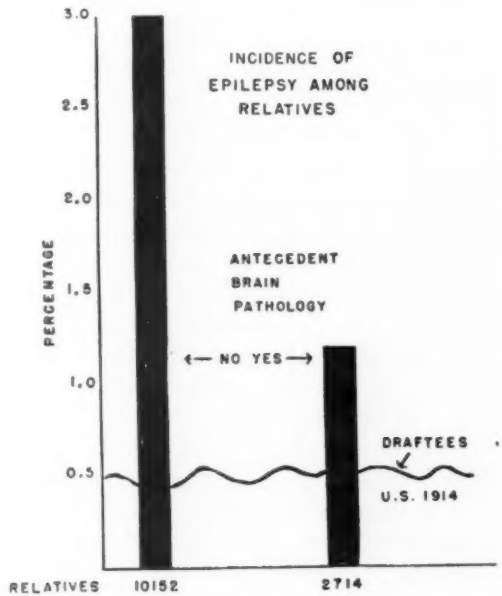


FIG. 2.—The incidence of epilepsy among the near relatives of patients, with reference to the absence or the presence of evidence of acquired brain pathology which antedated the first seizure. The incidence is 3.0 and 1.4 per cent respectively, compared with an incidence of 0.51% among draftees in the war beginning in 1914. The waviness of this line suggests uncertainty regarding the accuracy of this information.

present even in the acquired group.) This general fact can be illustrated by numerous case histories in which patients with so-called traumatic epilepsy have a family history of epilepsy.

*Sex.*—Various conditions may modify the weight of heredity. A constitutional variant of much interest is sex. Long ago Gowers (10) pointed out that epilepsy begins disproportionately early in females, but he attempted no explanation. Our statistics confirm this finding which seems illogical because males are more prone to birth injuries. A possible explanation lies in the fact that

conditions which are predominately genetic in origin tend to manifest themselves early in life. If this is so for epilepsy, those whose seizures began early should have an unusual number of relatives with epilepsy. This proved true in our series. Following is the total number of relatives and the percent who have epilepsy, with respect to the age of the patient when epilepsy began (including isolated childhood convulsions).

Onset	No. of relatives	Percent epileptic
0-4 years .....	3747	4.5
5-19 years .....	5170	2.5
20 and over.....	4497	1.2

Epileptic relatives are nearly 4 times more numerous if epilepsy began in the first five years than if it began after thirty years.

Dividing the data on the basis of sex we find that female patients had 5314 near relatives of whom 3.1 percent were epileptic, and male patients had 7,100 relatives of whom only 2.1 percent were affected—a 50 percent excess of female over male.

Investigating the rôle of age at onset with respect to sex, we find that young females have a disproportionately large number of epileptic relatives. This is displayed in the following breakdown of totals.

Age at first seizure	Male patients		Female patients	
	No. of relatives	Percent epileptic	No. of relatives	Percent epileptic
0-4 yrs. ....	1440	3.4	1307	5.8
5-19 yrs. ....	2796	2.2	2374	2.9
20 yrs. or over...	2864	1.2	1633	1.2

Thus, among male patients epileptic relatives are nearly 3 times more numerous if the patient experiences his first seizure in the first five years than if it occurs after he is twenty. But among female patients the epileptic relatives are nearly 5 times more numerous. In the youngest group the incidence among relatives is 70 percent greater in girls than in boys (Fig. 3).

In order to check this unexpected finding a different method was used. Patients were divided into three groups—those without epilepsy or migraine in the immediate family, those with one other affected member, and those with more than one. An isolated child-

hood convulsion was not counted as marking the onset.

Relatives affected	All patients		Female patients	
	No.	Average age at onset	No.	Average age at onset
None affected .	1672	15.4	705	14
One affected ..	190	13.9	89	13.1
More than one affected ....	50	10.7	30	7.0

Here again earlier onset of epilepsy accompanies evidence of heredity, but the relationship is much clearer in female than in all patients.

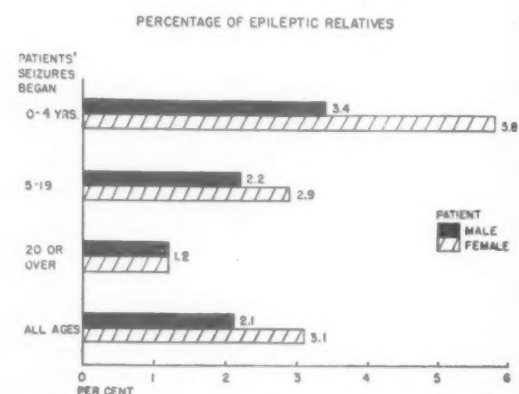


FIG. 3.—Incidence of epilepsy among the near relatives of patients with respect to the sex of patients and their age when seizures began. When seizures began early in life, the proportion of relatives with epilepsy was much greater for female than for male patients.

*Type of Seizure.*—Obviously, patients who have seizure patterns which are associated with brain pathology (Jacksonian and focal grand mal convulsions) will have relatively few epileptic relatives. Petit mal attacks rarely accompany brain pathology. The genetic influence doubtless accounts for the fact that 4 percent of the relatives of the females subject to petit mal have epilepsy, whereas the proportion for all females is only 3.1 percent.

The higher proportion of epileptic relatives of female patients is due to multiple cases in the family rather than to an unusual number of affected families. No one has suggested that epilepsy is sex linked. The present observations only show that the genetic factor (as measured by the number of epi-

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leptic relatives) is greater in females than in males.

**Mentality.**—The causes of mental defect in epilepsy are multiple(11). In certain individuals such defects may be transmitted, either with or without linkage with the transmitted predisposition to seizures. In our series of cases, the proportion of epileptic relatives varied with the mental state of the patients; 5.9 percent in the small group of patients who were mentally defective at birth; 3.0 percent in patients mentally normal at birth but who later became deteriorated; and only 2.4 percent if mentality was always intact(12).

Here again age at onset seemed to have an influence. If patients were defective at birth and also began to have seizures before the age of five, 9.3 percent of near relatives were epileptic. Sex also played a rôle. In the mentally abnormal group of patients, female patients had twice as many epileptic relatives as male patients.

### 3. INCIDENCE AMONG TWINS

Twins are especially useful in the study of genetics because identical (monozygotic) twins have the same heredity, whereas fraternal (dizygotic) twins do not. Evidence collected by Conrad(13), Rosanoff(14) and others has demonstrated the frequency of epilepsy in both co-twins if they are identical and its rarity in both if they are fraternal. We have studied 55 twins affected by seizures. The percentage of twin pairs in which both co-twins were epileptic was 94 percent in the monozygotic group without evidence of brain pathology, and only 17 percent in the monozygotic group in which the epileptic co-twin had evidence of brain pathology. Only one of the dizygotic twins had epilepsy in both co-twins.

Though the groups are small the results give convincing evidence of the importance and the interrelation of both genetic and acquired factors.

### 4. THE BRAIN WAVE TEST FOR CARRIERS

The "predisposition" to epilepsy is a nebulous quality, a subject discussed and argued through the ages, but never observed. Like an unseen plane, its presence is postulated

but not proved. The fact that persons subject to seizures display individuality as well as great irregularity in the pattern of the electrical waves coming from the brain suggested to us that wave patterns be studied from the standpoint of genetics. To that end, with the aid of the Committee on Human Heredity of the National Research Council, Dr. and Mrs. Gibbs and I(15) made electroencephalograms of 71 "normal" twins and found the brain wave design, like finger prints or the color of hair and eyes, could be counted as an hereditary trait; the brain wave records of normal monozygotic could not, and those of dizygotic twins could be distinguished.

Abnormality of rhythm is present in three-fourths or more of epileptics and oftentimes in patients who are without evidence of brain pathology and at the very onset of their illness. Therefore it occurred to us that irregularities of the brain waves might constitute the long debated predisposition. To test this theory we have recorded brain waves of 470 near relatives of epileptics, including both parents of 140 patients. We have also studied 55 twin pairs affected by seizures (16).

A little reflection will temper any expectation of securing a conclusive answer through this laboratory technique; the brain wave pattern is a trait which may have been altered by some acquired pathology or pathophysiology of the brain, and which is a fluid trait changing with the activity of the brain. Furthermore, a certain proportion of undoubted epileptics have a normal brain wave pattern and abnormalities, when they exist, differ in degree and in specificity. If a person has dysrhythmia without history, symptoms or neurological signs of pathology of the brain, or at the time of the examination does not have severe alkalosis, anoxemia or hypoglycemia, or other metabolic disorders associated with dysrhythmia, his disordered potentials are doubtless genetic in origin.

Paroxysmal "seizure discharges" (high voltage waves either abnormally slow or fast) are especially significant of epilepsy. In the group of 470 near relatives some degree of abnormality was observed in 50 percent against 16 percent in an adult normal

"control" group. Rhythms which were mildly slow or fast were 2.6 times more frequent in relatives than in controls; very slow or fast rhythms were 6 times; and seizure discharges 8 times more frequent (12).

More pertinent, but more complicated, is information derived from examination of the brain waves of both parents. Electroencephalograms were made of both parents of 140 patients. In 24 percent, the records of both parents were in some degree abnormal. This is approximately 12 times the corresponding percentage for chance matings from the control group. In 25 percent of the families, one or both parents had a grossly abnormal record, either seizure discharges, or dominant rhythms which were very slow or fast. Details are in a previous article (12).

Most significant is information derived from electroencephalograms of twins. A study of 55 twin pairs affected with seizures will be presented elsewhere (16). In the group of identical twins in which one of the co-twins has epilepsy and cortical dysrhythmia, the brain wave record of the normal co-twin is almost always abnormal also. In identical twins also, the epileptic co-twin almost always has evidence of having experienced an acquired injury of the brain.

#### SUMMARY

Study of the incidence of epilepsy among 12,119 of the near relatives of 2130 epileptics and among 55 twin pairs affected by seizures, together with analysis of the brain wave records of 470 relatives and of the 55 twins, leads to the conclusion that epilepsy *per se* is not inherited but a tendency or predisposition usually is inherited. The terms, genetic and acquired epilepsy, should replace the meaningless conventional terms essential and symptomatic. Probably in most patients both genetic and acquired factors are present. The incidence of epilepsy is higher among the near relatives of epileptics if pathology of the brain did not antedate the onset of seizures, if the patient's epilepsy began early in life, if he was mentally abnormal at birth, if he has petit mal and if the patient is female.

The electroencephalogram is an hereditary trait and brain wave tracings, properly made and interpreted, may be of positive value in visualizing a transmitted quality which (with

the possible help of acquired pathology or pathophysiology) may eventuate in epilepsy. The practical value of this evidence is limited, because cortical electrical activity is a fluid trait, dysrhythmia cannot always be demonstrated in patients, and tracings of relatives may display only minor deviations from normal. Therefore, negative electroencephalographic evidence may not be significant.

#### BIBLIOGRAPHY

1. Farris, E. J., and Yeakel, E. H. Susceptibility of albino and gray Norway rats to audiogenic seizures. *J. Comp. Psychol.*, 35: 73-80, February 1943.
2. Griffiths, W. J., Jr. Absence of audiogenic seizures in wild Norway and Alexandrine rats. *Science*, 99: 62-62, January 21, 1944.
3. Finger, F. W. Factors influencing audiogenic seizures in the rat; heredity and age. *J. Comp. Psychol.*, 35: 227-232, April 1943.
4. Maier, N. R. F. Abnormal behavior in rat strain: differences in inheritance of susceptibility to convulsions (audiogenic). *J. Comp. Psychol.*, 35: 327-335, June 1943.
5. Stein, C. Hereditary factors in epilepsy. A comparative study of 1,000 institutionalized epileptics and 1,115 non-epileptic controls. *Am. J. Psychiat.*, 89: 989, March 1933.
6. Ireland, M. W., Love, A. G., and Davenport, C. B. Defects found in drafted men. Statistical Information Compiled from the Draft Records. War Department, 1920.
7. Lennox, W. G. *Science and Seizures, New Light on Epilepsy and Migraine*. Harper & Brothers, New York City, 1946.
8. Lashley, K. S. Personal communication.
9. Kopeloff, L. M., Barrera, S. E., and Kopeloff, N. Recurrent convulsive seizures in animals produced by immunologic and chemical means. *Am. J. Psychiat.*, 98: 881, May 1942.
10. Gowers, W. R. *Epilepsy and other Chronic Convulsive Diseases*. Longmans, Green & Company, London, 1901.
11. Lennox, W. G. Mental defects in epilepsy and the influence of heredity. *Am. J. Psychiat.*, 98: 733, March 1942.
12. Lennox, W. G. Marriage and children for the epileptic. *Human Fertility*, 10: 97-105, December 1945.
13. Conrad, K. Die Bedeutung der Erbanlage bei der Epilepsie. *Deutsche Ztsch. f. Nerv.*, 139: 77, 1936.
14. Rosanoff, A. J., Handy, L. M., and Rosanoff, I. S. Etiology of epilepsy with special reference to its occurrence in twins. *Arch. Neurol. and Psychiat.*, 31: 1165, 1934.
15. Lennox, W. G., Gibbs, E. L., Gibbs, F. A. The brainwave pattern, an hereditary trait. *J. Heredity*, 36: 233-243, August 1945.
16. Lennox, W. G. Fifty-five twin pairs affected by seizures. Proceedings Association for Research in Nervous and Mental Diseases. (In press.)

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## THE NEUROPSYCHIATRIC PROGRAM OF THE VETERANS ADMINISTRATION<sup>1</sup>

DANIEL BLAIN, M.D.,<sup>2</sup> AND JOHN H. BAIRD, M.D.<sup>3</sup>

As a prelude to more detailed discussions to follow by Special Section heads of the Neuropsychiatric Division, I propose to outline briefly the over-all plan necessary to fulfill the obligations of the Veterans Administration to its neuropsychiatric beneficiaries, the policies on which these plans are based, the scope of the responsibilities of the NP Division and a report of the progress to date with a forecast of the speed with which these obligations will increase.

I. To orient you with the plan of organization of the medical functions of the Veterans Administration and especially the rôle played by neuropsychiatry in carrying out its functions, I have had prepared three slides. The first one shows the divisions of the professional services which are under the general supervision of the Chief Medical Director. You will note that there are four main divisions, General Medical, Surgical, TB and NP. The Central Office Medical Service is the policy making body for the entire Veterans Administration.

The second slide shows the sub-sections of the NP Division, with Special Assistant for Personnel, a Section having to do with editorial work, statistical reports and regulations, and six special sections concerned respectively with neurology, clinical psychology, psychiatric education, outpatient functions, inpatient activities and research. You will note also that the NP Division maintains close liaison with the Social Service and Nursing Departments.

The third slide represents the extension of Central Office functions to the field, through the 13 branch offices in the 13 areas covering the country. In each branch office there

is authorized a full-time Chief of the NP Service and also a part-time Senior Consultant for NP. These psychiatrists direct the NP activities in the Regional Offices, Outpatient Treatment Units and Hospitals in the area concerned. There are also to be assigned specialists in neurology and psychology in the Branch Offices, the neurologist as a part-time consultant and the psychologist full-time. You will note that all GM & S hospitals are to have NP Sections in them and that all NP hospitals are to have GM & S Sections.

Of signal importance in the over-all planning of the NP Division is the creation of an Advisory Committee composed of 23 outstanding and nationally known psychiatrists, neurologists and representatives of social service and psychiatric nursing. This committee had its initial meeting in Central Office the last of April when many important policy matters were discussed and decisions were made. It is planned that the committee will meet in Washington with Dr. Blain and his staff at least three times a year. The advice of the entire group as well as of smaller committees of the group will be sought from time to time by correspondence and personal contact. They will also be available to advise field stations direct.

II. It is our belief that the most important policy that has been established by the NP Division is a thorough integration of psychiatry with internal medicine and surgery which should unquestionably reflect in improved over-all care for all types of patients. Of scarcely less importance is the policy of the broad extension of outpatient facilities for the treatment of the functional illnesses which will insure a concentration on psychiatric problems at their source rather than upon the end results requiring prolonged hospitalization.

Other important policies which have been adopted and which are being realized as rapidly as circumstances permit are:

(a) The education of physicians in the spe-

<sup>1</sup> Read at the 102d meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

<sup>2</sup> Acting Assistant Medical Director for Neuropsychiatry, U. S. Veterans Administration, Washington, D. C.

<sup>3</sup> Chief, Editorial, Statistical and Reports Section, Neuropsychiatric Division, U. S. Veterans Administration, Washington, D. C.

cialties of psychiatry and neurology through the residency program and in service training and encouraging them to become certified by the American Board of Psychiatry and Neurology.

(b) The education of the public in the prevention of psychiatric illness through publicizing the program of the Veterans Administration for those requiring treatment.

(c) Individualization of the patient with psychiatric disability in the minds of all persons whose responsibility it is to serve him, through training courses in all hospitals for physicians, psychologists, social workers, nurses, dieticians, physical therapists, occupational therapy aides, chaplains, librarians, attendants, etc.

(d) The provision of adequate NP facilities in general medical and surgical hospitals and adequate general medical and surgical facilities in NP hospitals.

(e) The greater use of ancillary medical personnel in general; social workers, aides, psychiatrically trained nurses, etc.

(f) The use of clinical psychologists, not only in Mental Hygiene Clinics but also in General, TB and NP hospitals.

(g) The close association of all NP installations with medical teaching centers insofar as is possible.

(h) The modernization and extension of treatment units for veterans with tuberculosis who are also psychotic.

(i) The development of special treatment facilities for the disorders of old age.

(j) Reducing to a minimum the administrative duties of physicians in hospitals to allow them more time with their patients.

(k) The development of a program of foster home care for selected psychotics and an extension of the trial visit program generally.

(l) The extension of the use of consultants in psychiatry and neurology in all field stations.

(m) The endorsement of the much improved physical therapy and recreational therapy programs for NP hospitals now being developed.

(n) The raising of the standards of qualification for attendant personnel in NP Units.

(o) The development of an enlightened program of treatment for chronic alcoholics.

(p) The establishment of special treatment centers for aphasic speech disorders and for epileptics.

(q) The raising of the standard of care for psychotic patients.

(r) The simplification of regulations and procedure governing the handling of psychiatric problems which will permit field stations to operate more independently.

(s) The provision of adequate treatment facilities for women with NP conditions.

(t) The development of a logical building program with attention to placing new units near medical centers and utilization of the best professional and architectural talent available to ensure ideal structural plants.

(u) The careful study of medico-legal matters in order to bring about needed reforms and more uniform procedure.

(v) The establishment of Convalescent Treatment Centers for the inpatient treatment of severe psychoneurotics.

(w) The development of Rest Centers for the care of certain borderline cases among veterans who do not require formal hospitalization but who need more attention than can be given in outpatient clinics.

(x) The encouragement of the greater use of properly indoctrinated volunteer workers in hospitals.

(y) The development of the use of general practitioners in sparsely populated areas and their training in the fundamentals of psychiatry.

(z) The adoption of a more comprehensive and definitive nomenclature of psychiatric disorders.

III. It is difficult indeed to comprehend the magnitude of the medical responsibilities of the Veterans Administration toward veterans with NP disorders of World War II and prior wars, in the form of hospital and outpatient treatment, to say nothing of the medical examinations required for the determination of eligibility for monetary benefits, *i. e.*, compensation, pension, retirement pay, insurance, eligibility for vocational rehabilitation, feasibility for a particular type of training and outpatient treatment of veterans during such training.

The number of living veterans of World War I and earlier wars is estimated as about 4,066,000. The general estimate of the num-

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ber of persons who have served in the Armed Forces of World War II is about 15,000,000. This roughly makes a total of nearly 20,000,000 persons who are potential beneficiaries of the Veterans Administration. Many more women, nurses, Waves, Wacs, Spars and Marines will be eligible for Veterans Administration medical care than was the case following earlier wars.

I shall now show a few slides which I believe will give you some idea of the size of the NP program. The first slide shows the separations from the Army for NP conditions, between January 1, 1942, through June 30, 1945. There were 320,000 granted medical discharges (CDD) because of NP disorders. This represented 41% of all medical discharges. In addition 137,000 men were discharged for NP disorders under a non-medical category which includes mental deficiency, psychopathic personality, enuresis and certain other conditions. Taking into account both medical and non-medical categories, a total of 457,000 men were discharged from the Army for NP disorders, from just after Pearl Harbor through June 30, 1945.

Approximate figures from the Navy covering about the same period show that 106,600 were discharged for NP disorders. This number does not include persons with borderline psychiatric conditions discharged under non-medical categories. This makes a total of 563,600 discharged from the Army and Navy for NP disorders through last June.

The next slide shows the service connected NP cases on compensation and pension rolls, as of the last of the calendar year 1945. The figures for World War I and World War II are not comparable since the figure for World War I represents only the residual number receiving compensation. There is no register maintained showing the total veterans of that war who have been compensated for NP disorders. However, you will note the very high percentage of World War II veterans with NP disorders on the pension rolls who are listed in the functional or psychoneurotic group.

The next slide shows the number of authorized beds in all NP hospitals and the number of patients hospitalized as of April

18, 1946. This slide also shows the total number of admissions to all veterans hospitals and contract hospitals for NP disorders during the period July 1, 1944, through June 30, 1945.

The last slide shows the projection of possible hospital loads to 1975, by five year periods. You will note that it is predicted that there will be a steady increase in the number of veterans with NP disorders to be provided for until 1965 or 1966, approximately 20 years hence.

IV. Now finally as to the progress made to date in the accomplishment of some of our objectives, I might mention the following:

(a) The organization of a smooth running team of psychiatrists, psychologists and lay assistants in the NP Division with close association with social and nursing services.

(b) The functioning of the Advisory Committee to the NP Division which has already resulted in the initiation of a number of needed reforms in medical practice in the Veterans Administration.

(c) A broadening of outpatient treatment units both in our own Regional Offices and under contract with established clinics.

(d) A reclassification of Social Worker positions ranging in the field from P-2 (\$2980) to P-5 (\$5180) and the establishment of Chief Social Worker and Case Supervisor positions. The social worker strength has increased from a total of approximately 150 on duty a year ago to nearly 500, with 300 more positions authorized. About ten schools of social work are placing students in our stations for their field work (1st and 2nd year) and plans are being worked out with about twelve more schools for similar placements.

(e) The liberalization and simplification of certain regulations concerned with the care of NP patients.

(f) The beginning of a psychiatric educational program for physicians, and other professional and non-professional personnel, including contact men and women to whom the veteran goes with a variety of problems.

(g) An educational program for veterans with emotional ills urging them to seek psychiatric help early.

(h) The formulation of an educational and treatment program in neurology in co-

operation with the American Neurological Association.

(i) An expansion of the in-service psychiatric nursing educational program in each NP hospital under the direction of a nurse instructor who functions under the general supervision of a nurse specialist in neuropsychiatry in Washington. Seventeen NP hospitals are approved for senior cadets and 3 are accepting affiliate student nurses.

(j) The advantages resulting from the decentralization program which in the main are as follows:

1. A more immediate contact between the field station and the administrative authority.

2. The greater familiarity of the Branch Office with local situations than has been possible with Central Office attempting to supervise the activities throughout the entire nation.

3. The greater ability on the part of the Branch Office to effect needed changes more promptly through surveys of a different type than have ever been conducted in prior years by Central Office.

4. The Branch Office working in close and continuous cooperation with the field stations thus furthering the best interests of all patients served.

(k) The setting up of residencies under the auspices of Deans' Committees and professors of neuropsychiatry offers intensive and supervised training in the specialty to interested physicians.

As to a forecast of the speed with which our obligations will increase, I have shown the estimated probable hospital requirements for veterans with disabilities requiring inpatient care. However, we feel that ultimately there will be a far greater number of veterans who will need and desire psychiatric treatment administered in outpatient departments. This likelihood is more impressive when one considers the great number who are already rated as service connected for psychoneurotic disorders. Then too, one has no way of estimating the number of veterans with general medical or surgical disorders who will need psychiatric treatment for concomitant NP conditions.

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## CARE AND TREATMENT OF THE PSYCHIATRIC PATIENT IN THE VETERANS ADMINISTRATION<sup>1</sup>

HARVEY J. TOMPKINS, M.D.,<sup>2</sup> AND ALFRED W. SNEDEKER, M.D.<sup>3</sup>

Much has been said concerning the present and anticipated neuropsychiatric load of the Veterans Administration. The quoted figures are impressive; admittedly our present personnel and facilities are too few. Of necessity the problem of proper care of our patients in clinics and hospitals has been undertaken with a disquieting knowledge of current limitations. Our approach, therefore, has been realistic without sacrificing the objective of adequate and modern treatment. Much planning has been done and now four months after the passage of our "Enabling Act" we are gradually implementing what we believe to be sound policies.

There will be continuing insistence on placing Veterans Administration Hospitals near medical centers, the greatest single aid to the proper care of the patient. If it is demonstrated conclusively that our present medically isolated hospitals cannot be adequately staffed, we will not hesitate to recommend that patients be moved to a more favorable location.

We are working on the building plans for new hospitals and have been able to incorporate progressive ideas in the construction of neuropsychiatric installations, with the intent of providing the best environmental surroundings and facilitating the practice of modern therapy. The general appearance will be non-institutional. The design of the buildings is functional and represents the best in present day ideas in architecture.

All general medical and surgical hospitals to be newly built or acquired will have at least 30% of the total beds allocated to the NP service, which will be approximately equally divided between the psychiatric, neu-

rological and convalescent sections. The convalescent section will care for the psychoneurotic who cannot be successfully treated on an outpatient basis but does not require formal hospitalization. The section is to be located in a separate building if possible or, if not, on the lower floor and as far from the psychiatric section as is structurally feasible. Every effort will be made to provide a non-hospital atmosphere. There will be adequate facilities for a complete activities program.

Each section of the neuropsychiatric service will be headed by chiefs, all of whom will be responsible to the Chief of the Service who will have a status equal to that of the Chiefs of Medicine and Surgery. The neuropsychiatric activities in present general medical and surgical hospitals are to be similarly developed as far as facilities and available personnel permit. It is our policy to hospitalize the maximum number of NP patients in general hospitals rather than in special NP hospitals, recognizing the fact that a large proportion of NP problems in veterans can be treated, and treated more successfully, at the general hospital level. The development of this program should give inestimable aid to the bringing of psychiatry into general medical and surgical wards everywhere.

The so-called specialized neuropsychiatric hospitals are to have two self-contained units, acute and continued treatment. In addition, there will be adequate general medical and surgical sections to care for the veterans of the community as well as the hospital population. An existing hospital has been changed to the acute and continued treatment plan as a "pilot" and we have been sufficiently encouraged to consider similar changes in other specialized NP hospitals. It may be that at this time it would be appropriate to consider completely discarding the two appellations "General Medical and Surgical" and "NP." As you may know, except for purely statistical purposes, the Veterans

<sup>1</sup> Read at the 102d meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

<sup>2</sup> Chief, Inpatient Division, Neuropsychiatric Service, Department of Medicine and Surgery, Veterans Administration, Washington, D. C.

<sup>3</sup> Chief, Outpatient Division, Neuropsychiatric Service, Department of Medicine and Surgery, Veterans Administration, Washington, D. C.

Administration now calls all its hospitals simply "VA Hospitals."

The need for increased facilities for women veterans is recognized with the allocation of 2% of new beds. In hospitals principally for NP patients the proportion is 5%. We anticipate this percentage because of relatively inadequate NP screening of women in the Armed Forces during World War II.

NP TB patients will be treated in hospitals properly staffed and equipped and strategically distributed throughout the United States. These hospitals will be under neuropsychiatric supervision coordinated with the Tuberculosis Division of the Department of Medicine and Surgery.

Family care is being developed. It is proposed to pay \$10.00 per week for each patient boarded out. The hospital will continue to be responsible for adequate supervision of each patient.

A continued attack is being made on eliminating non-medical duties for doctors and nurses with heartening progress, despite obstacles inherent in any governmental agency which, we have found, are not always insurmountable.

The Nursing Service is intent on providing the best nursing care, and realizes that this can be done only by increasing the knowledge and skill of the nursing staff. Training programs have been established for instructors, head nurses, staff nurses, cadet student nurses, affiliated student nurses and attendants. The value of the properly trained attendant in the therapeutic program is recognized and every effort is being made to improve his status. The training of the attendant in the Veterans Administration is based on the manual compiled by the nursing committee of the A.P.A. The program has been approved by the National League of Nursing Education.

The Social Service Division of the Veterans Administration works closely with the NP Division. A representative from the Social Service Division sits in on our policy-making meetings and correlates social service programs with that of the general NP Division. Social service plays an important rôle in our treatment plans. For example, in our anticipated family care program, we will be relying upon the social worker's skill in finding foster homes where, in addition to good

physical care, the patient will have the proper psychological environment. We will also rely upon social service for supervising the families giving patients such care. The social worker is an integral part in all aspects of the NP program: in hospitals, convalescent sections, mental hygiene clinics, and in rural work. The proper training of these workers is important. We are, therefore, heartened to know that such programs are under way, both for social workers already employed and for those who are still in training.

Every hospital will have a complete medical rehabilitation program supervised by a specifically qualified medical officer. This service will include the department of physical medicine, which will be complete and well equipped for the treatment of various types of disabilities with all the modalities used by psychiatrists. There will be corrective physical rehabilitation personnel who will specialize in the corrective training so successfully utilized in the armed forces. Another important unit in the rehabilitation service is that of educational retraining where a wide variety of subjects can be studied. There will be a staff of instructors who will teach courses and assist with individual studies. The United States Armed Forces Institute has made available to the VA 175 different courses for correspondence work and self-study with academic credit available for work accomplished. There will be an extensive shop program in each hospital. In these shops the patient will have a rather wide choice of work he may wish to do for the rest of his life. This is really pre-vocational training and it leads to a continuous process of rehabilitation.

Representations are being made to provide adequate housing and recreational facilities for hospital personnel, needs which are not being met at this time and threaten the entire treatment program due to their adverse effect on recruitment and the morale of our personnel. Organized public opinion could render great aid in correcting this situation.

In addition to our hospital plans it is, of course, necessary a program be developed that is designed not only to alleviate minor neuropsychiatric illnesses but to prevent the development of more serious ones and thereby reduce in number the veterans re-

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quiring hospitalization. This will be particularly true where a somatic complaint is the symptom of a mental illness.

Outpatient care is being provided and planned in several ways. The Veterans Administration is to have its own Mental Hygiene Clinics in a number of the larger cities. Thirty-two have been authorized, but we expect that this number will be increased. Thirteen clinics are already functioning. A few have complete staffs in full swing, some are only partly staffed and others at the stage of preliminary spade work. All are seeing some patients, but the general program is still in the initial stages of implementation. However, several clinics have been functioning for a sufficient length of time and with adequate personnel to confirm the original estimate of the need and effectiveness of treatment.

Rapid organization is impeded by the scarcity of personnel, including psychiatrists, psychologists and social workers, as well as by difficulty in obtaining space in convenient locations.

Contracts are being made with established Mental Hygiene Clinics usually in the larger urban areas. Contracts with fourteen such clinics have been made, and a score or more are at the present time pending or under consideration. These clinics accept anywhere from two or three to thirty or more new patients per month and carry caseloads up to fifty or sixty. We should like to receive proposals from a great many more clinics, through our local sub-regional or regional offices. Direct applications can also be made to the Central Office in Washington.

Efforts are being made to employ neuro-

psychiatrists on a fee basis particularly in areas where neither of the previously mentioned services is expected to be available. Action is also being expedited at present to secure the services of neuropsychiatrists under the so-called state plan. Contracts are being made with responsible agents of State Medical Societies whereby members are employed on a fee basis, so that, if there are no VA services conveniently at hand, the veteran may select his own doctor.

The employment of psychiatrists on a fee basis either directly or through the state plan is being developed primarily for the needs of the rural areas where the population is not sufficiently dense to warrant clinics but where hospitals and sanatoria with competent neuropsychiatrists are frequently located. In addition, we are planning to use the services of various traveling mental hygiene clinics.

As indicated previously, the policies being developed and followed in regard to both inpatient and outpatient care of neuropsychiatric disabilities are intended to be progressive, comprehensive and sound. Our personnel individually or in groups have the opportunities of exploring all legitimate avenues of treatment. Our residency training program will enable us to give concentrated and individualized care to patients with disorders particularly amenable to therapy. The doctors will pursue their duties with the encouragement and under the direction and supervision of professionally qualified superiors. It is expected that with our great amount of clinical material we will be able to make a real contribution to modern neuropsychiatric treatment.

## THE NEUROPSYCHIATRIC TRAINING PROGRAM OF THE VETERANS ADMINISTRATION<sup>1</sup>

FLORENCE POWDERMAKER, PH. D., M. D., WASHINGTON, D. C.

*Chief, Division of Psychiatric Education, Neuropsychiatric Service*

### I

The training of specialists in all of the various fields of medicine through the joint efforts of a government agency and the medical schools is an adventure in administration and education that calls on the experience and wisdom as well as the patience, forbearance and the experimental attitude of the great body of doctors joined together in this effort. There are no precedents for this—only the traditions of our profession. Like all advances in medicine, it has come about in answer to a need that shouts from the house tops as well as almost any popular magazine one happens to open.

The needs in psychiatry involve three interrelated categories of problems: the shortage of psychiatrists, the body of knowledge which comprises our specialty, and the methods we use in teaching. As to the shortage, we need only look to a few figures. The proportion of hospital beds for neuropsychiatric cases in the Veterans Administration is approximately the same as in the general population—slightly over 60%. In addition we anticipate a very large outpatient load. We do not know the number of veterans suffering from the psychoneuroses but we do know that almost a quarter of a million veterans of World War II, as of December 31, 1945, were receiving pensions for "functional nervous diseases," the category used for the psychoneuroses.

Where are the doctors to come from who will take care of these patients? At present the psychiatrists listed by The American Psychiatric Association constitute approximately 2½% of the total number of doctors in the country. What else can this mean but that every doctor qualified not only to care for patients but in teaching, has a part in this effort. This applies not only to our residency

program but to the undergraduate medical school. Students must learn what modern psychiatry is, what a challenge it presents and what wide variety of medical interests are served in this specialty.

Our training plan is just beginning to operate. We hope to educate 1000 residents in the next three years. The Veterans Administration will pay for the program but we ask the medical schools to be responsible for the teaching, carried on however with our active cooperation. Doctors who are veterans have preference for places. Each prospective resident must have had at least a year's rotating or medical internship. The residencies will be from one to three years and the men must have the intention of taking training sufficient to meet the Board's requirements for certification. Basic training in the necessary sciences and in neurology are included. There can be no legal obligation to continue in the Veterans Administration. We hope that the men will feel a moral obligation to stay and we believe that the service will be so good that they will want to.

We have tried to work out plans that require a minimum of recording and reports, and allow the necessary amount of flexibility to deal with different situations. We ask only for that which is required to carry out the law and keep the Central Office informed in general. The millennium has not been reached but we are doing the best we can.

The deans of the medical schools in any locality constitute a dean's committee for residency training in all the specialties. If there is only one school, the dean, of course, acts alone. This committee then appoints a sub-committee on neuropsychiatry, usually consisting of the professors of psychiatry in each school, but others may be added. This neuropsychiatric committee selects and recommends the residents and the part-time teachers, and works out a curriculum. Although the need is so great, it would not be met if the quality of the men selected for

<sup>1</sup> Read at the 102d meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

residents was sacrificed for quantity. Several medical schools are working on the problem of selection, and Dr. James Miller with the staff of Winter V. A. Hospital are also at work on it. Since a complete, well-rounded course cannot be given at the veterans hospitals, necessary experience which cannot be obtained there may be had elsewhere, but at least 50% of the time of the resident must be spent with veteran patients. This time may be divided in whatever way is most feasible and gives the best training in the particular circumstances involved. Teaching in the Veterans Administration hospitals is carried out by the consultants and attending psychiatrists and one or more full time teachers under the supervision of the professors of psychiatry in charge of the work, and is an integral part of the teaching program. This teacher, who is called the director of clinical psychiatry, also has charge of an active treatment service which we aim to keep small so as not to interfere with his teaching duties.

In addition to the teaching of residents, we are deeply interested in in-service training. Many junior and senior physicians who have worked hard and well under the most trying conditions are eager for more training. Because we are short staffed, it is not possible at present to give them leave for study elsewhere. We must do as much in-service training as possible. All teaching rounds and discussion groups are open to the entire staff and when possible men will be given time to attend a specific course outside of the hospital to supplement this. Hospitals too far from medical schools will, wherever possible, be visited once a month or oftener by members of the nearest faculty for a day of rounds and clinics. Or a visiting doctor may hold a series of clinics for a week at a hospital and as many doctors from the area are brought in as is feasible. We believe that the caliber of this over-all teaching program, initiated and supervised by the psychiatric departments of the medical schools, will merit approval as training hospitals by the Board, and that it will attract men who want to learn and doctors who can teach.

It should now appear why a few moments ago I called this program an adventure. Most medical schools have used the limited

services in local city or county hospitals for their undergraduate teaching in psychiatry. The number of internships available there are few. The most sought for general residencies, by and large, have been in the university hospitals, very few of which have psychiatric services. So, in the main, most psychiatrists had to get their experience in hospitals with little formal teaching and little supervision or case discussion. This was slowly beginning to change in the thirties, but it took the war with its overwhelming need for psychiatrists and the recognition of this need by the medical profession to bring about such a program as I have described, as well as others carried out under local auspices. The great opportunities in the large Veterans Administration hospitals and clinics provide the locus for such training and the participation of our medical schools provide an integrated teaching program.

This brings us to the question of the content of the training and the methods of teaching to be used. Our emphasis on the well-trained teacher and a definite curriculum does not mean that we are interested in a rigid system of courses, spoon-fed to groups of passive nonentities. Psychiatry is the possessor of an enormous and rapidly increasing body of experimental and experiential observations and facts, for the most part ill-digested and poorly integrated. This naturally leads to widely varying theories and basic philosophical concepts, and from this lively rivalries develop. A healthy state to be in as long as we don't stay there. We are like adolescents with new experiences and concepts of the world impinging on them which they must understand, test and integrate if they are to mature. We have the same job if psychiatry is to progress. There have been signs in the literature and in our discussions that such progress is being made and our training must recognize it and aim to increase it.

Therefore, the emphasis must be laid on the fullest possible discussion of carefully made observations, on the development of new theories as well as the study of old ones and on their testing. This is a process in which teacher and pupil are only distinguished by the longer experience of the former and by the attitudes toward patients

which practice has taught them. The historical foundations of our science and art need to be studied—but as a spring board from which to go on.

How to do this best, we have yet to learn. Since the inauguration of clinical clerkships there has been no outstanding advance in methods of teaching. Perhaps the group experimenting with the short courses in psychiatry for general practitioners under the Commonwealth Fund will find new methods—perhaps some of our own hospitals will. Once the need is recognized we can expect advances in this field also.

Training in psychiatry under the Veterans Administration can only be as good or as poor as the medical schools make it. We will give whatever funds and cooperation the law permits. We have an Advisory Committee on Education from whom recommendations may be expected from time to time. We are appreciative of the opportunity to serve as a clearing house for experiences and perhaps at times as a touchstone for further advances.

## II

We also construe psychiatric education to include non-professional employees and to some extent the patients and their families. Everyone who comes in contact with a patient should understand enough of the situation to be able to help the patient by his attitude and behavior. Ignorance and fear need to be overcome, and experience shows that valuable returns are obtained from a relatively small amount of time spent in teaching lay personnel. This includes every employee of the hospital and clinic.

In addition, there are the contact men and women—employees to whom a veteran goes with any problem, to find out what kind of aid he can get and where and how he can get it. Every town and village has one such person and cities have many of them. We have prepared three film strips to use in their training—one to give some understanding of the neurotic and psychotic behavior they encounter, another on how to handle it under the circumstances in which they operate and one to help them with their own emotional reactions to difficult contacts. These strips will be cut and rearranged for use with other lay groups. An illustrated pamphlet for contact men and a simpler one for other employees have been written.

We have asked the hospital managers to arrange for discussions with groups of families of patients where possible. Unfortunately, there have never been regular visiting days which makes this difficult.

In regard to patients, we feel that group discussion of their problems at an intellectual level has some value, though limited, and is not a substitute for either individual or group therapy.

Perhaps, our most important educational problem—certainly one of the most difficult to approach—is the education of the veteran to seek psychiatric help early, to understand that going to a mental hygiene clinic does not mean that he is “psycho,” and to get the cooperation of medical and surgical men in this. Of course, since the veteran is one-sixth of our population, that means many more psychiatrists to be trained—so we have come back to the point at which this paper started.

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## THE NEW RÔLE OF PSYCHOLOGICAL TESTING IN PSYCHIATRY<sup>1</sup>

KARL MENNINGER, M. D., DAVID RAPAPORT, PH. D., AND ROY SCHAFER, B. S.

Topeka, Kans.

It is common knowledge that the systematization of psychiatric nosology was begun by Kraepelin, but it is unfortunately not commonly appreciated that the cradle for this systematization was built in the psychological laboratory of Wundt. The journal *Psychologische Arbeiten* published by Kraepelin (as well as Kraepelin's own volumes, particularly the *Manic-Depressive Insanity and Paranoia*) bear witness to the fact that Kraepelin observed fundamental differences in the basic psychological functions of different types of psychiatric cases and hoped that it would prove possible to distinguish between them by means of psychological laboratory experiments. Perception, attention, consciousness, memory, retention, train of ideas (the thought process), associations, inhibition, mental efficiency, mood, pressure of activity and speech, degree of excitability—these were some of the functions Kraepelin considered fundamental.

However although it was Kraepelin who envisaged these psychological functions as fundamental he did not proceed to organize them into a consistent framework from the point of view of psychopathology or psychology proper. The list just cited confuses functions with phenomena (*e. g.*, attention as a function and inhibition as a phenomenon); it also includes functions not clearly distinguished from one another (*e. g.*, memory and retention). Further, the so-called "fundamental" psychological functions as listed by Kraepelin include many symptoms, such as hallucinations and delusions.

Bleuler, the other fountainhead of modern psychiatry, was much more clear-sighted in this respect. In his rarely read and untranslated volume *Dementia Praecox or the Group of Schizophrenias* he distinguished the fundamental or primary symptoms of schizophrenia from its secondary

symptoms. As primary symptoms he included the association disturbances, the affect disturbances and the ambivalence, with corollary disturbances in perception and apperception, orientation, memory, consciousness, motility, reality appraisal, attention and will; and as the secondary symptoms he listed sensory illusions, delusions, catalepsy, stupor, negativism, mannerisms, hyperactivity, automatism, echopraxia, impulsive acts, confusion, twilight states, deliria, and fugues. According to him the primary symptoms precede the secondary ones in time—often by a considerable period—hence he considered the early detection of these primary symptoms to be the prime diagnostic task in schizophrenia. Bleuler relied partly on the word-association experiment and partly on the interview to establish the presence or absence of such primary symptoms. Like Kraepelin, he hoped that psychological experimentation would become the tool for detecting disordered functioning before gross and overt mental disorder develops.

We are therefore justified in asking what progress has been made to date in wake of the initial ideas of these two thinkers. The balance sheet one can draw up from modern textbooks of psychiatry indeed provides a disappointing answer. Interest in psychological functions (in the sense quoted above from Kraepelin and Bleuler) did not increase; in fact it *decreased*. There seem to be two good reasons for this. The reasons lie in the retardations in the development of psychiatry on the one hand and in those of psychology on the other.

On the side of psychiatry for a long time the prevalent nosology was arbitrary and not based on the etiology of the disorders, and therefore any differential diagnostic technique was doomed to failure. Psychological experiment could be no more useful than the framework in which it was applied. Interest in psychiatry subsequently, and to some extent consequently, shifted to etiology

<sup>1</sup> Read at the 102nd annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

of mental disorder and the new emphasis fell partly on neuropathology and partly on psychopathology of psychoanalytic orientation.

On the side of psychology, it must be remembered that the laboratory of Wundt, whence Kraepelin's work emerged, was also the cradle of experimental psychology. Psychology was at its very beginnings. The functions and phenomena it proposed to investigate were not yet well defined. How could these ill-defined functions have been the basis for sound diagnostic differentiations, even if they had been applied to etiologically-clear nosological entities? They were not applied, however, and the result was discouragement, reflected in the literature by futile, unsystematic attempts and by loss of interest.

The integrating of the efforts of psychiatry and psychology had to be postponed until more etiological clarity had been achieved in psychiatry and more theoretical maturity had been reached in psychology. Thus, the ways of the two disciplines, once so closely linked, parted. The distance between them grew particularly great when psychiatry's interest in dynamics and etiology became all absorbing, *e. g.*, in psychoanalysis; and when psychology's paramount interest became theoretical, *e. g.*, in gestalt psychology.

In the meantime, however, psychological testing, issuing from a cradle different from the common Wundtian cradle, developed on its own and served as a temporary liaison between psychology and psychiatry. It was first confined to intelligence testing, later to aptitude testing and to the questionnaire method of personality testing. Yet, all the while, it again and again used the association experiment and, under the fructifying influence of dynamic psychiatry, it also developed what is commonly called projective testing.

Today, psychological testing has reached an unparalleled development in this country and has proved that it is here to stay. Yet for a long while it suffered under the same handicaps which doomed to failure the early attempts at joining the efforts of psychiatry and psychology. It set out first to appraise intelligence before the concept intelligence was systematically understood. In the absence of systematic understanding, pragmatic

application, always handy, was the result. In general, intelligence tests were applied only to make pragmatic distinctions between degrees of mental ability and efficiency. This remained the case until recently, even though for the last 35 years efforts were also made to study the qualitative relationships between different parts of intelligence test performance and different types of adjustments and maladjustments, as well as the qualitative relationships between different types of responses on the word association test and different types of disorders. These efforts of psychological testing were also handicapped, as indicated above, by the continuing lack of nosological clarity in psychiatry, and also by the fact that validation of diagnostic indicators was precluded by the conflicting and inconsistent diagnostic criteria used in state hospitals, the usual source of cases for research. An additional handicap was the statistical-pragmatic construction of intelligence tests, without a theoretical orientation. As a matter of fact even most of the currently popular projective tests were developed as pragmatic procedures (excepting perhaps the play techniques which were based on the concept of the projection mechanism and which used psychoanalytic interpretive principles). The Rorschach Test and the Thematic Apperception Test developed without theoretical clarity as to the processes involved in producing the responses and as to the laws governing the relationship between response and personality makeup. Yet old-timers in clinics well knew that there are qualitative relationships between test performance and specific diagnosis, and had hunches as to how the development of a story or response comes about differently in different types of people and in different types of sick people. This knowledge, however, remained either anecdotally, or not at all, recorded. So the Kraepelin-Bleuler heritage, the idea that changes in psychological functions or their relationships is characteristic and therefore diagnostic of different types of disorders, remained all but forgotten even with the advent of general interest in testing.

Psychiatry, however, has begun to approach greater etiological clarity—even though it is far from having solved its nosological problems. Similarly, psychology has

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grown out of its mechanistic childhood boots; and its developmental, comparative and experimental as well as theoretical achievements set at least a baseline against which evaluation of efficiency of functioning can be made. In psychological testing new advances have been made, not only in the sense of developing more, new, bigger and better testing procedures, but also in the sense that interest has arisen in the functions that go into achievements or reactions on different tests.

Therefore the time appears to be ripe once again to raise the Kraepelinian and Bleulerian questions: what psychological functions are selectively impaired in different mental disorders; and can we, and how are we to, establish the presence or absence of the primary symptoms of mental disorder before the gross, secondary symptoms are clinically conspicuous?

Diagnostic psychological testing can help answer these questions, motivated as it now is to approach every case with these questions in the back of its mind. It has the advantage over clinical observation in that it has completely recorded segments of the patient's behavior at its disposal, and through the study, scoring and evaluation of these segments it makes possible quantitative inter- and intra-individual comparison of those psychological functions which go into producing the various achievements and reactions on the several tests. Clinical observation, in contrast, never has isolated segments of behavior nor has it had quantifiable behavior at its disposal. For example, a notation of impairment of both judgment and attention based on direct observation or case history, is at best only a gross estimate, and does not allow for a decision as to which of the two functions is the more impaired. But only such relative assessment of impairment or retention of psychological functions can serve as an objectification of what Kraepelin already observed: that specific impairments are characteristic of specific mental disorders. Furthermore, fine inter-individual comparisons of impairments cannot be made from clinical observation: who would be ready to say which is the poorer of two poor judgments made in two different settings by two different people? Or who will be or is able to judge without tests like the association test or Rorschach test the

presence of a fundamental but early associative disorder, distinguishing the products of such an associative disorder from genuine originality of thought and wealth of idiosyncratic memories?

In today's clinical psychology a variety of new intelligence tests (particularly the Bellevue Scale) and concept formation tests (particularly those of Goldstein), as well as the Rorschach Test and its parallel series; the Thematic Apperception Test and the various quantifiable play and other projective procedures—all serve to elucidate assets and impairments in various psychological functions. And modern psychiatry's trend toward a loosening of nosological rigidity allows for more reliable comparison of varieties of mental disorders in regard to the characteristically impaired psychological functions in each. Furthermore, the ever-increasing interest of dynamic psychiatry in ego-psychology and defense mechanisms opens a way for psychiatry to understand assets of everyday-psychological-functioning and to compare these with assets seen in test achievements. Finally, the theoretical developments of psychology allow for exploring the specific nature of these functions, which, by their impairments or by their being outstanding assets of the individual, reflect the character or the disorder makeup, the defense mechanisms or their breakdown, used by the individual to cope with his conflicts.

It appears that the following interlocking sequence is fundamentally important for the test assessment of patients in adjustment and maladjustment: certain patterns of defense mechanisms are adopted and these determine specific strengths and weaknesses and in psychological functioning which then become characteristic of the adjustment of the personality; with the onset of maladjustment, an exaggeration or breakdown in these strengths and weaknesses characteristic for that maladjustment occurs which can be measured; this leads to a diagnostic differentiation.

For the psychological examiner the interlocking sequence should be, first, knowledge of the dynamic etiology of the mental disorder as productive of specific defenses or their breakdown; second, the theoretical knowledge of the psychological functions which are related to specific defenses or their

breakdown; and finally the knowledge of tests of the psychological functions.

The systematic and intelligent use of tests in psychiatry should yield extremely fruitful results. The employment of these test methods should not only lead to a greater proportion of correct and timely diagnoses, but in addition they can be utilized in an experimental way to investigate an important aspect of ego-psychology, namely, the nature of human thinking.

As a practical matter this is now working out as follows: Psychological testing has revealed the presence of a schizophrenic process in many patients, while clinical evidence of schizophrenic tendencies is faint or absent. To put it another way, the psychologist is discovering schizophrenia or "potential" schizophrenia or "latent" schizophrenia in patients who are not suspected of being classifiable as schizophrenic according to old concepts and which have puzzled the psychiatrist diagnostically and therapeutically. This is not happening in a few cases, but in a considerable number of cases, enough to make us suspect that the vast majority of persons in whom a "schizophrenic process" is present

are not easily recognizable as such without specific testing. It may be, indeed, that it is only the exceptional schizophrenic who comes to the psychiatric hospital for treatment, and it may be, again, that many persons whom we have called "alcoholic addicts," "psychopathic personalities," "intractable neuroses" and so on, must be viewed in a very different diagnostic (and therefore therapeutic) light. If so, our present nosological systems and many of our notions about "typical" clinical pictures are going to have to be radically revised. It may be that we shall have to look more sharply for certain traits of negativism, incongruity, impracticality and so on, and less searchingly for such gross manifestations of dereism as hallucinations and ideas of reference.

This is only one of the modifications in psychiatry which collaboration with modern psychological testing techniques is bringing about. The better the cooperation between psychologists and psychiatrists, the better founded will be the development of new nosological concepts, the more accurate and more timely our diagnoses, and the more specifically directed our treatment.

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## THE PSYCHOANALYTICAL APPROACH TO THE MASCULINE AND FEMININE PRINCIPLES IN MUSIC

MARGARET TILLY

*Head Music Therapist, Langley Porter Clinic, San Francisco, Cal.*

In considering music as a therapeutic agent, an interesting aspect worthy of further investigation is that of the masculine and feminine principles as evinced in both the personality of the composer and his compositions, and the possibility that they may have a direct relationship to like principles in ourselves.

The fact that all the great composers have been men, does not confuse the issue. Jung's theory shows man's feminine side (or Anima) to be usually suppressed, remaining for the most part in his unconscious. When the Anima is overstrong, and not projected onto a woman, a neurotic condition is caused and results in a homosexual personality. Much of the Anima is likely to be projected through the creative work of the individual, in which we then recognize a strongly neurotic feminine flavour, while in the better integrated man, his feminine side will show as merely part of a well-balanced whole, for the Anima then serves rather than dominates him.

Careful analysis seems to indicate the relative strength of the Anima to be the same in both the personality of the composer and his work; moreover many years of association with musicians, students and listeners have convinced the writer that we are apt to respond most favourably to music in which the strength of the Anima approximates that in ourselves. This seems to be true regardless of either the sex or the mental condition of the individual. Thus the schizophrenic patient, far removed from reality, will react according to his basic type; *e. g.*, a male patient in whom the masculine principle is weak, will prefer music strongly feminine in character.

In analysing compositions care must be taken lest we become confused by the style and period, which at first glance may cloak the individual expression, for although personality will cut through even the most es-

tablished forms, one must often look carefully to find it.

Before proceeding further, it is necessary to set down the premise from which we start, namely, a group of those masculine and neurotic feminine qualities which we may expect to find manifested in musical composition.

### *Masculine Qualities*

Form  
Impersonality  
Direct Approach  
Drive  
Rhythmic power  
Sustained thought and emotion  
Superior thinking  
Great output of large works

### *Neurotic Feminine Qualities*

(As found in the man)

Mood  
Personal approach  
Indirection  
Sentimentality  
Rhythm subservient to melody and harmony  
Quickly shifting emotions  
Love of decoration, *per se*  
Small output, with short works predominating

The following brief analysis of the lives of several of the great composers and the outstanding characteristics of their work, will show the underlying psychological pattern of the man and of his work to be similar.

### THE FEMININE PRINCIPLE PREDOMINATING

#### CHOPIN

*Life.*—Born of good family in the peculiarly music-loving province of Mazovia, Poland, Chopin had a happy childhood, surrounded by brilliant and adoring people who, however, pampered him because he was frail and sickly. This led to an adult life of deeply dependent relationships with both men and women. He made strong projections, lasting all his life, on two men met in early youth,

with homosexual relations indicated but not proved. For some years he was also in love with a singer, who finally jilted him, but his strongest attachment was to a dominant masculine woman in the person of George Sand, who managed and mothered him for several years. She describes him as "living on infatuations and secret discontents which poison his dearest affections." She says further, that real grief never disturbed him as much as small vexations, the slightest offences being remembered for weeks, and that he was forever tormented by melancholy thoughts, though having occasional outbursts of extreme gaiety. His health was always fragile and he is described as feminine, irritable, sensitive and easily hurt, superstitious and moody. On hearing music he would frequently burst into tears. He showed an inordinate interest in his clothes and appearance, and in letters to friends, would give the most detailed account of everything said both to and about him. He remained forever tied to his family, and when away from home, was so entranced by a letter or present from any member, that no one might touch or even look at it for more than a moment.

All his life he moved in an aristocratic milieu. The luxurious salon life of Paris suited him, with its elegance and its adoring female society, whereas the slightest sign of poverty was extremely repugnant to him. Manners, he also felt, were so all-important that the least breach was never forgiven. There are frequent comments on his talent as an actor, but his playing was described as weak. He always wanted violets in his room. He was not outgoing to his fellow musicians, was anti-Jewish and had few men friends. He thought Beethoven's work too colossal, the storms of passion too violent and that he lacked delicate finish. Mozart was more to his liking.

*Work.*—Neurotic feminine traits can be found in the preponderance of short works in song form, preoccupation with delicate tracery and sentiment which only his genius saved from sentimentality. In general, everything in his music was subservient to the melody, which in turn served the quickly shifting moods and over-subjective and often morbid outlook. His rhythmic sense was

either nationalistic, or a highly nervous expression, rather than the manifestation of true virility. Almost his entire output was for solo piano.

*Summary.*—Mother-complex, shown by lifelong dependency on women or effeminate men, culminating in an attachment to a masculine woman. Feminine tendencies also shown in the enjoyment of soft luxurious life, love of clothes, moodiness, sentimentality, over-subjective attitude, lack of robustness in both physique and creative work.

#### TSCHAIKOWSKI

*Life.*—His was a childhood dominated by an almost hysterical passion for his mother, and further controlled by a succession of governesses. Although his entire family was unusually deficient in musical feeling, his father did not discourage his study of music, although not until Tschaiowski reached his twenty-third year, did he himself take his studies seriously. He had a hatred of friction, which caused him more and more to seek solitude. He was shy, timid and nervous and for a time suffered from hallucinations. At the age of 28 he fell in love and desired marriage but was not accepted. Throughout his life, he was extremely subservient to his teacher, Anton Rubinstein, but his strongest tie was the strange friendship carried on entirely by correspondence with Mme. von Meck, a wealthy patroness of the arts, whom he never met, but to whom he poured out his thoughts as to no other person. There is no indication that the very warm and genuine mutual interest of these two people was in any way affected by the generous financial support the composer received from his friend.

After thirteen years of this association, in an attempt to assert his masculinity Tschaiowski allowed himself to be persuaded by a young girl into a marriage which lasted but a few weeks and culminated in his severe mental breakdown. He dwelt on his grief to a morbid degree and allowed his correspondence with Mme. von Meck to end. His depression increased, he cried easily and moped himself into a state of anxiety. He was always profoundly disturbed by any criticism of his work, was absentminded and

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a victim of bad dreams and insomnia. When his mother died, it was nearly three years before he could bring himself to tell even his closest friends. Both he and his brother were homosexuals, a fact which disturbed him greatly and to which he frequently alluded in letters to this brother.

*Work.*—The many works of large proportions show an almost continual turbulence and a lack of emotional balance that leans towards lush morbidity. The short periods of relief are more in the nature of neurotic sprightliness than healthy good humour. Rosa Newmarch says: ". . . His progress is based on impulse rather than upon intellectual convictions . . . the futility of human achievements . . . the attractive luxury of woe." Certainly self-pity and hopelessness show throughout all his great outpourings.

*Summary.*—Mother-complex, shown by an abnormal passion for his mother, later transferred to Mme. von Meck. His fear of responsibility shows in homosexual attachments and the emotional friendship with Mme. von Meck with its attendant financial support. His inability to make the necessary adjustment to his brief marriage and the mental breakdown which succeeded it, help to paint the picture of a highly neurotic and sexually immature personality.

#### LISZT

*Life.*—We read of his sickly boyhood, with much time spent on his knees in prayer and in tears, and of his great dependence on his mother. This developed into an adult life in which vanity and a love of flattery and approbation played a prominent part. In company he became an actor, bent on making a sensation, but too weak to withstand harmful influences. He was fêted by women in the salon life he loved, and indulged in whimpering self-pity, alienating his men friends. Of himself he says, "My true nature is for martyrdom . . . am I condemned forever to this trade of a buffoon, whose business it is to entertain a salon?" Others write: "You are too much preoccupied with being grand." "Liszt will never have the courage to take a resolution to break anything. The man in him oscillates widely, be-

tween the two poles of extremest passion; apparently he has not yet found that centre of gravity for his innermost being that is so difficult for the greatest man to find."

Liszt's gesture in becoming an abbe shows less religious conviction than one more craving for the dramatic spot-light. As an insight into his own character, nothing is more revealing than Liszt's short biography of Chopin, where in his descriptions of the famous Pole he gives himself away in every sentence.

*Work.*—His musical style is one of over-elaboration, bombast and "effects," being also over-emotional and streaked with pseudo-religious sentimentality. His interest is in colour rather than form, and he shows a marked weakness for making cheap and elaborate arrangements of other composers' works. In perspective, his contribution to music is seen to be chiefly that of adding to orchestral "effects." His compositions direct the attention to the performer rather than to the music itself, always reminding the listener of the pianist Liszt of the fabulous technique. His works have been described as "religious, idyllic, heroic, erotic" and full of "delirious romanticism."

*Summary.*—Mother-complex, shown in dependency first on his mother, then transferred first to many women throughout his life and finally to the Church, where the father confessor takes up the mother role. Narcissism shows by his concentration on the effect of his own personality on those around him and his love of all that was showy and ornamental for its own sake.

#### THE MASCULINE PRINCIPLE PREDOMINATING

##### BACH

*Life.*—Born into a family famous for several generations on account of the great number of distinguished musicians it produced, Bach spent a happy childhood where the study of music was taken for granted. When the boy lost his parents at the age of nine, he went to live with a brother, but became entirely independent when only fifteen. From then until the end of his life, he assumed responsibility for all needy members of the large family and although never

wealthy was so friendly and hospitable to all about him that his house was seldom without guests. He always enjoyed the company of his fellow musicians, from whom he received love and admiration, but spent little time with other people.

He made two happy marriages and was unremitting in his efforts to give the best possible education to his many children and also to his pupils. He chose persons of distinction as godparents for his children, with foresight as to their ability to help them in their subsequent careers. This sense of responsibility was carried into the teaching field also, for he kindly but firmly shed pupils he considered insufficiently talented, thus spreading a sense of the dignity and value of art to an ever growing circle. He was fond of saying, "The sole object of all music should be the glory of God and pleasant recreation." His was a deeply religious nature, balanced by a keen interest in the world about him, for throughout his life he was eager to know and understand everything new. He possessed a fine library and showed more interest in the literature of music than most of his contemporaries.

Of powerful build, Bach was endowed with an equally powerful personality—-independent, reliable, arbitrary, dignified, ready to fight for his own rights, yet full of human sympathy and consideration, never criticising his fellow artists and seemingly unaware of his own great gifts. He had a fine sense of humour and the comic style was as familiar to him as the more grave. It is noticeable that he found it necessary to play some work (often of inferior quality) by another composer, before he could free his own creative spirit and begin to write, and he wrote slowly with much rewriting. As a choir-master, he was a failure, as he lacked the tact and patience for elementary teaching and was too irritable to control boys. Yet his home life seems to have been unusually happy and satisfying. It is interesting to note that as a young man, Bach played the viola in ensembles, thus choosing a rich inner voice, binding together the whole, rather than the more prominent and acclaimed violin or 'cello. Bach went blind in the last year of his life and died of an apoplectic stroke, unnoticed and unsung.

*Work.*—Bach holds the unique position of summing up an entire period, for instead of blazing fresh trails he took the material of his time and carried it to heights that have never been approached before or since. The technique of handling such amazing intricacies of contrapuntal writing, while at the same time evolving ever larger and more complex forms, could only have been developed by a brilliant thinker; yet so great was Bach's genius, that in listening one is overwhelmed by the feeling that this must perhaps be the greatest example of inspired human creation. Here is not only a man of colossal mind, but one assured and well-adjusted to life, for in all his writing one finds a noble serenity, balanced and logical, tempered by warmth and a sense of humour and a love of humanity that reaches both up and down. In the sustained power of mood and phrase (phrases of tremendous span) there is an inevitability not to be denied, coming from an appreciation and acceptance of life in the fullest meaning of the term, not from the aggressive, compulsive drive of the neurotic.

*Summary.*—Independence, stability, power and vigour, self-assurance and a voluntary assuming of responsibility and protection towards those about him, a long and happy marriage, plus a lifetime spent in the glorification of form, add up to an outstandingly mature and masculine personality.

#### HANDEL

*Life.*—Handel's father, 63 years old when the boy was born, objected strongly to music and intended his son to practice law. Young Handel made no strenuous objections, but secretly took every opportunity to learn what he could of music on the side, so that upon the completion of his law training he was able to turn his full attention to the profession of both composing and performing. Here was a man of immense physical and mental stature, possessed by a tyrannical urge to create, rough and peremptory in manner, given to outbursts of violence and fury, always, however, tempered by wit and underlying good humour. His manners and tastes are said to have been gross, yet the general tone of his life was high, especially in

comparison with that of his age. He travelled extensively in Europe and spent some years in Italy, before finally moving to London, where he spent the rest of his life.

His life is characterised by vigour, action, wit, kindness, independence and readiness to do battle rather than compromise. Rolland says:

He wrote his music with such an impetuosity of feeling and such a wealth of ideas that his hand was constantly lagging behind his thoughts and in order to keep pace with them at all, he had to note them down in an abbreviated manner. . . . Handel is a great painter of characters . . . all bear witness to the suppleness and the profundity of his psychological genius. . . . This genial improviser had the cult of style and instinct for immediate and vital effect. Our epoch has lost the feeling of this type of art and man, pure artists who speak to the people and for the people, not for themselves or their confrères . . . Handel's eloquence was not without relation to that of the epic orators . . . this eloquence did on occasion thrust itself into the soul of the nation, as in the days of the Jacobite invasion where Judas Maccabeus incarnated the public feeling. In the first performance of "Israel in Egypt" some of the auditors praised the heroic virtues of this music which could raise up the populace and lead armies to victory. . . . Certain melodies once written down continued to slumber in Handel's mind for many years, until they had penetrated his subconscious nature . . . they are so to speak, in search of a body where they can incarnate themselves, seeking the true situation, the real sentiment of which they are but the latent expression and having once found it, they expand themselves with ease. It is even difficult to see a conscious and logical evolution in him. . . . He is of the kind who drink in the life universal, assimilating it to themselves. His genius adapts itself to a thousand images of passing events, to the nation, to the times in which he lived, even to the fashions of the day . . . such is the power of assimilation and the prevailing equilibrium of his nature that he never feels submerged and overweighted by the mass of these strange elements. Everything is duly absorbed and classified. This immense soul is like the sea itself, into which all the rivers of the world pour themselves without troubling its serenity.

When Handel wrote, it was always at breathless speed—often composing an entire oratorio in a week. His flood of ideas poured out in their final form, for he never turned back to rewrite any passage, and this early confident ease continued irrespective of the usually stormy and troublous state of his public life. During his early London years Handel wrote 46 operas, most of which were

produced, at first with great success. Later, however, partly because this success aroused the jealousy of his fellow musicians, but chiefly owing to political intrigue in the Court against the King, who was Handel's patron, another opera company was set up by the opposing faction, and for a long time Handel suffered all the sneers and humiliations that his rivals could think up, which caused him both bankruptcy and physical breakdown on more than one occasion. In spite of all this, the quality and serenity of his work never changed, although he finally turned away entirely from opera and began writing the many oratorios, which he felt would reach the hearts of the greater mass of the people. He seemed indeed to retire into himself, depending on his power of concentration to shut out the sounds of the storm whirling about him. One cannot speak of Handel's private life, for he seems to have had none. One or two mild love interests in his youth are mentioned, but he seems to have had no sex life. He was too busy for many social activities, and apparently had only one friend, a friend of his youth, who reappeared towards the end of his life and remained with him during his last years.

Handel's great concern for the poor was outstanding, and he was quietly generous to both individuals and charitable institutions. He greatly helped the Society of Musicians (for the indigent) and was responsible for establishing the recently opened Foundling Hospital on a firm financial footing. During his lifetime, performances of the "Messiah" might be given only for the benefit of the Foundling Hospital (to which he gave the original score) and three institutions for the poor, in Dublin. He went blind a few years before his death but continued writing until the end, leaving money and directions in his will for a statue of himself to be placed in Westminster Abbey.

*Work.*—Handel was a prolific writer of works almost entirely in large form. They were dramatic and forceful, the mental and emotional elements being well-balanced. So tremendous was the amount of creative material constantly crowding him, that "one can truly say he improvised every minute of his life." Rolland in writing of the way in which Handel translates emotions into music

says: "We often speak of the psychological analysis of character in dramas and novels, but the term synthesis is more appropriately applied to Handel's dramatic art, for he adds one trait to another until he has built up the entire character . . . he represents every emotion in isolation, unmixed and pure, leaving it to the listener to form an impression of a character as a whole, making his men and women express their feelings and reveal the secrets of their souls characteristically, convincingly, naturally. A character in a Handel opera is expressed musically by the sum of the arias given to him. Each aria reveals a different characteristic." Beethoven thought Handel the greatest musician that ever lived.

*Summary.*—Independence, drive, sustained thought and energy, superior thinking, shown in the tremendous output of large works, the stress on form, the drive and strength that enabled him to produce in spite of devastating obstacles, point to a personality strongly masculine.

#### BEETHOVEN

*Life.*—Against a background of poverty and misery, with a drunken father and a sad, gentle, consumptive mother, the young Beethoven grew up a shy and taciturn boy, untidy, negligent and poor at his school studies. His father was a hard taskmaster, and the boy became obstinate, self-willed and scornful of all men, full of a colossal arrogance. His biographers one and all speak of him as the personification of energy and vigour, of his great physical strength, his extreme clumsiness and wild gesticulations, his loud shrill laughter and his humour which was merely an indulgence in horseplay and clumsy punning. He was inordinately proud of honours that came to him, but jealous and critical of others who received them. He was always a misanthrope, refusing to pay deference to others, but demanding great respect towards himself. His loudest criticisms always concerned morals, showing a merciless attitude toward any hint of sexual delinquency in others, yet his own philanderings were frequent and his business dealings dishonourable. . . . This sex complex caused him to cast aspersions on the character of any person who in any way opposed him.

As his deafness increased, he became insanely suspicious of his fellow man and his rudenesses and offences were continual and were followed by equally intense repentance, hardly consistent with complete sanity. In ordinary life, his contemporaries felt his mental structure to border on stupidity. He was always inclined to profound melancholy, and his whole rough awkward nature mellowed to a gentle sweetness in his latter years. Many of his troubles are symptomatic of the venereal disease from which he was reputed to suffer. All through the years his love of nature and the country is manifest, but outside of his art, his unhappy and neurotic guardianship of his nephew was perhaps the strongest feeling in his life.

Schauffler writes: "This was a man whom nothing could down; a man who could walk through the valley of the shadow of death and turn the croakings of the ravens into a rollicking canon . . . he had that infectious intensity, that almost superhuman vitality characteristic of the great . . . a colossus with one foot in classicism and one in romanticism;" and Rolland says: "Beethoven scarcely ever emerges from himself, but this self is a Universe, the masculine sculptor who dominates his matter and bends it to his hand . . . the spirit in command."

*Work.*—Ernest Newman has described his music as "Inspiration plus headwork, reflective reasoning, the latter, in his greatest music, on the same high level as inspiration . . . inspired technique." The widely varied writing, always in large forms, while free and spontaneous in effect, is nevertheless handled in such a way that structure is of the very essence of the emotional content. The assurance which enabled him to break with tradition, the rhythmic vitality, the rich harmonic treatment of the simple, almost banal themes, could have been achieved only by a powerful nature, dominant to the point of ruthlessness.

*Summary.*—A deeply introverted personality, unable to adjust to the outside world, showing evidence of a persecution complex, probably brought about by his deafness. His life, while undoubtedly neurotic, shows no sign of an over-stressed Anima, nor is there evidence of neurotic femininity in his music. Feminine passages in his scores, are the

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warm, balanced demonstrations found in a man in whom the masculine principle predominates.

## BIBLIOGRAPHY

- Bowen, C. S. D. *Beloved friend*. New York, Random House, 1937. (Tschaikowsky.)  
 Evans, Edwin. *Tschaikowsky*. London, Dent, 1906.  
 Grace, Harvey. *Ludwig van Beethoven*. London, K. Paul, 1927.  
 Grove, Sir George, ed. *Grove's Dictionary of music and musicians*, 4th ed. New York, Macmillan, 1940. (Beethoven.)  
 Huneke, J. G. *Chopin; the man and his music*. New York, Scribner, 1900.  
 ———. *Franz Liszt*. New York, Scribner, 1911.  
 ———. *Mezzotints in modern music*. New York, Scribner, 1899. (Chopin and Tschaikowsky.)  
 Karasowski, Maurycy. *Frederic Chopin; his life, letters, and works*. London, W. Reeves, 1879.  
 Leichtentritt, Hugo. *Music, history, and ideas*. Cambridge, Harvard University Press, 1938. (Beethoven.)  
 Liszt, Franz. *Frederic Chopin*, Boston, Ditson, n. d.  
 Macfarren, Sir George. *Addresses and lectures*. New York, Longmans, 1888. (Bach and Handel.)  
 Newman, Ernest. *The man Liszt*. New York, Scribner, 1935.  
 ———. *The unconscious Beethoven*. New York, Knopf, 1930.

Newmarch, Rosa. *Tschaikowsky*. London, Richards, 1900.

Niecks, Frederick. *Frederick Chopin*. 2 v. London, Novello, 1902.

Nohl, Ludwig. *Life of Liszt*. Chicago, Jansen, McClurg & Company, 1884.

Rolland, Romain. *Beethoven*. New York, Holt, 1917.

———. *Beethoven the creator*. London, Gollancz, 1929.

———. *A musical tour through the land of the past*. New York, Holt, 1922. (Handel.)

Schauffler, R. H. *Beethoven, the man who freed music*. New York, Doubleday, 1929.

Schweitzer, Albert. *J. S. Bach*. Leipzig, Breitkopf & Härtel, 1911.

Siloti, Alexander. *My memories of Liszt*. Edinburgh, Methven Simpson, Ltd., 191-.

Spitta, Philipp. *Johann Sebastian Bach*. 3 v. London, Novello, 1884-85.

Terry, C. S. *Bach; a biography*. London, Oxford University Press, 1933.

Thayer, A. W. *The life of Ludwig van Beethoven*. Rev. ed. 3 v. New York, The Beethoven Association, 1921.

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## DILANTIN TREATMENT FOR BEHAVIOR PROBLEM CHILDREN WITH ABNORMAL ELECTROENCEPHALOGRAMS<sup>1</sup>

CHARLOTTE F. WALKER, M.D., AND BARBARA B. KIRKPATRICK, B.A.

More and more material has accumulated in recent years in the literature suggesting the existence of a disturbance of the cerebral electroactivity in the so-called behavior disorders in children and also in some of the behavior and personality disorders in adults. These findings support the assumption that organic or metabolic factors might be of etiological significance in the causation of some behavior disturbances. The term "behavior problem," as it is used in clinical diagnosis, comprises a multitude of symptoms which are not necessarily caused by one specific etiological factor and is, therefore, rather vague. Very little, indeed, is yet known of the mechanisms of cerebral functioning and, therefore, of the disturbances of cerebral functioning. Since the electroencephalogram represents one of the objective tools which medicine possesses today to investigate the abnormalities of central nervous system functioning, it was used in the study of the so-called behavior disorders, especially the behavior problems of children, because they are usually assumed to be somewhat less complicated than adult behavior problems.

Jasper, Solomon and Bradley(1) in 1938 reported the occurrence of abnormal cortical potentials in 70 percent of a group of behavior problem children which they studied and drew attention to the similarity to epilepsy in the abnormal pattern found, although clinically none of the cases were having convulsions at the time, and in most of them epilepsy was not suspected. The importance of these findings as a possible etiological factor was stressed. This was soon followed by reports from other investigators who confirmed the original findings and published additional studies(2-7). Solomon and co-workers(8) in 1944 concluded on the basis

of their study that, although a large percentage of abnormal EEGs is found in severe behavior disorders, these findings could not be considered in any way conclusive but could be regarded as an additional unfavorable factor, among others, influencing behavior adversely. Michaels and Secunda(9) in 1944 laid emphasis on their observation that the electroencephalographic findings correlate with certain neurotic traits of behavior disorders and not necessarily with the vague syndrome of behavior problem. Similar findings were again reported by Michaels(10) in the following year.

Silverman(11), Hill(12), and others reported abnormal electroencephalographic findings in constitutional psychopaths, and Strauss(13) directed attention to the frequent abnormal records found in chronic neurotic patients and suggested that some of them may be found suffering from some chemical or biological insufficiency as indicated by the abnormal EEG, and that, clinically, they might fall into certain categories.

Putnam and Merritt(14) described the symptom of "dullness" as an epileptic equivalent, and further understanding concerning allied epileptic disorders, latent epilepsy, and the heredity of epilepsy was gained through the well-known work of Lennox and Gibbs(15) and Lowenbach(16). Hill(17) reported frequent correlation of abnormal EEGs with aggressiveness in psychopathic personalities.

It is of further interest that Ross(18) found that the EEG in children may stay abnormal for a long time after encephalitis and encephalomyelitis, although at the same time no evidence of clinical pathology or of behavior disorders can be demonstrated.

Very recently, Gibbs and co-workers(19) reported that extensive studies reveal no significant differences in the electroencephalographic findings of criminals as compared with those of control subjects taken from the general population, and that no significant

<sup>1</sup>Read at the 102nd annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

From the Department of Neuropsychiatry, Duke University Hospital and School of Medicine, Durham, N. C.

correlation could be found between the EEG and the type of criminal behavior. In a preliminary study, they(20) had previously reported a greater incidence of abnormal EEGs in criminals.

In comparison with the relatively large number of investigations concerning abnormal brain potentials and abnormal behavior, it is somewhat surprising that comparatively little effort was made to utilize the findings for therapeutic procedures. Dilantin and other drugs have been used extensively in the treatment of epilepsy, but there are very few reports concerning their use in behavior disorders or other mental conditions. Cutts and Jasper(21) in 1939 reported on the effect of benzedrine and phenobarbital on behavior problem children with abnormal EEGs. In 1942, Lindsley and Henry(22) studied the effect of benzedrine, dilantin, and phenobarbital on 13 institutionalized children, and reported that they found benzedrine most effective, dilantin next, and phenobarbital least in controlling their behavior. These children were severe behavior problems, and no attempt was made to differentiate which type of behavior disorder might respond more to one than to another drug.<sup>2</sup> Bradley(23) reported more specifically the use of dilantin in the treatment of children with behavior disorders but failed to give detailed data concerning his method with this particular drug. Brown and Solomon(24) however, in the same year, reported that in a group of 20 cases of institutionalized behavior problems which they studied, 7 were given dilantin, 0.1 gram four times a day for a period of seven weeks, and 4 of the patients responded. No reference is made to the difference in electroencephalographic findings of those patients who responded and those who did not. It was only later that conditions other than clinical epilepsy were treated with dilantin on a somewhat larger scale. Putnam and Kalinovsky(25) medicated 60 psychotic patients with 0.3 to 0.6 grams of the drug daily over a period of two to five weeks and reported some improvement in about fifty percent of

the patients during the period of treatment. This was followed up later by Freyhan(26) and Kubanek and others(27) who found improvement in psychotic patients with marked motor excitement, restlessness, moodiness, and irritability during a period of treatment with 0.3 to 0.6 grams of dilantin. No EEG had been obtained in either group of psychotic patients. A recent paper by Brill and Walker(28) reports the successful use of dilantin in a 19 year old soldier with severe psychopathic behavior and an abnormal EEG who had shown no evidence of typical epilepsy at any time.

In the present study, dilantin was used in the treatment of children who fall clinically in the category of behavior problem children, both conduct and neurotic type, and in whom abnormal electroencephalographic findings were obtained.

#### MATERIAL AND PROCEDURE

The children studied in this group were selected on the following basis: The clinical diagnosis was behavior problem, the electroencephalographic findings showed abnormalities, and there was no known family history of epilepsy and no definite history of central nervous system disease in the children. They were between the ages of seven to twelve, of both sexes, colored or white, from various economic levels and of various intelligence. They were referred through welfare agencies, juvenile courts, pediatric out-patient clinics, through private physicians, or brought by their parents directly. All but one child were examined on an out-patient basis, and all of them were treated on an out-patient basis.

The routine procedure followed in these cases was complete physical examination, neurological examination, social history, psychiatric examination, psychometric testing, primarily on the Stanford-Binet test, Form L (with additional psychological procedures carried out on some of the patients) with electroencephalographic recording when the child had been without any medication for at least eight days. X-rays of the skull were obtained on all children with a history of head injuries. Routine laboratory tests as used in the usual pediatric work-up were

<sup>2</sup> In the experience of one of the authors, benzedrine has been found less effective in children who responded to dilantin.

done. Some of the children had additional tests which were requested by the parents but were always negative and are of no significance here. During each examination, the child was alone with the examiner.

The EEGs were obtained with the standard method now employed in most electroencephalographic laboratories. Six monopolar tracings or six dipolar tracings in different relative arrangements were recorded simultaneously. Details of the clinical findings usually remained unknown until after the electroencephalogram had been interpreted.<sup>3</sup>

Follow-up studies on patients were conducted in the majority of cases through return visits to the out-patient department. Occasionally this was done through correspondence and reports from the parents in the intervals between visits to the clinic. The dosage employed in the treatment was between 30 mgs. t.i.d. and 0.1 gram t.i.d. on the basis of size and age of the child, individual need, and clinical progress. No combination of drugs was used in this study. The cases reported here have been treated and followed over a period of nine to eighteen months. Increase of dosage of medication was advised primarily on the basis of clinical observations and symptomatology, as in the treatment of epilepsy.

### CASE HISTORIES

**CASE I.**—E. L. P., age 10, white, female, was referred to the psychiatric out-patient clinic from the pediatric clinic of this hospital with the chief complaint of frequent crying spells, failure in school, and marked change in her total behavior of about a year and a half duration. It was learned that the child has been considered to be well-adjusted, happy, and bright in school until her present illness. When eight years old and in the third grade just before school ended, she became ill, developed abdominal pain and occipital headaches, seemed on edge, and became dissatisfied with school. She suffered from poor appetite and appeared dull. The next fall she got failing grades in school, began to cry unexpectedly without obvious reason, was frightened, refused to sleep by herself, and was also frequently observed talking aloud to herself. Her condition gradually increased in severity, and at the time she was brought to the clinic, it was difficult to make good contact with her. She seemed

only partially interested in her environment and afraid to talk.

She is the fourth of five children. Some of the siblings are described as having nervous trouble or temper tantrums. The family's economic condition is very inadequate. The father feels overworked and is frequently irritable. The mother keeps house and is often cross with the children because she has been sick and nervous for a long time. The patient has always gotten along fairly well with the family.

The patient's birth is said to have been normal and her development average until the onset of her present illness. At the age of three, she was knocked down by a car but was not unconscious and had no severe injury or other sequelæ. Some bed wetting beyond the age of three was successfully handled by getting the child up at night. There is also history of breath-holding spells when she was small, but no history of convulsions or any serious illnesses at any time.

The physical examination and routine laboratory studies revealed nothing beyond a somewhat poor nutritional state. The psychiatric examination showed the patient to be very passive, somewhat withdrawn, fearful, and even slightly negativistic. Contact was rather poor. Psychometric examination on the Stanford-Binet test, Form L, revealed an I. Q. of 81 under somewhat poor testing conditions because of the inadequate cooperation.

The EEG was reported as showing moderate, predominantly occipital dysrhythmia during the resting state; pronounced and almost paroxysmal dysrhythmia during overventilation and for some time afterwards.

Dilantin, 0.1 gm., b.i.d., was prescribed. Two months later, the child appeared improved, more alert and friendly. The mother reported that the patient was eating well, was not crying, was taking interest in helping in the housework, and again liked to play with other children. She was still somewhat afraid of sleeping by herself. Medication was increased to dilantin, 0.1 gm., t.i.d. She was not seen again until four months after the original interview because she had scarlet fever in the meantime. She appeared better nourished, smiling, cheerful. The family reported that no difficulties in her management had occurred, and the patient has since been followed for over a year, has been going to school quite regularly, is in good contact with her environment, appears friendly, although somewhat shy, and is getting along well.

**CASE II.**—S. J. M., age 9, white, female, was admitted on the pediatric service with the chief complaint of nervousness of three years' duration. She was referred for psychiatric consultation after initial pediatric studies revealed nothing of significance.

The patient is the second of three children and the only girl. The family has always been financially secure. Both parents are college graduates, the home situation is described as congenial, and the parents' attitude towards their children is very good. It is known that the patient makes every

<sup>3</sup> For the permission to use his electroencephalographic reports for the description of the electroencephalographic technique, the authors are grateful to Dr. Hans Löwenbach.

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Birth and development in infancy were normal except that it was thought she was somewhat slow in learning to talk. She had enuresis until the age of five and has always bitten her fingernails. She was started in a private progressive school system where she got along well. Then the family moved, and the child was transferred to a public school system in which she was put back a grade. She has never liked it there but had no special difficulties until the onset of the present illness when she began to show severe temper tantrums, was not able to sit still in school, was often reprimanded for not paying attention, could not get along with other children, and gradually began to fail in her school work. She cried easily and retired from company of her own age. Three to four months prior to this examination, she began sucking her thumb again. Her management at home became more difficult, and the problem she presented became increasingly puzzling. The family history is said to be negative for nervous or mental disorders.

The psychiatric examination revealed a rather attractive, well developed, well nourished, nine-year-old girl who appeared alert, established contact readily, and talked freely about her various problems. It was noted that she was quite restless and rarely sat still during the interview. Occasionally her attention appeared to drift; however, this was so mild that it might have escaped occasional observation. The psychometric examination on the Stanford-Binet test, Form L, revealed an I. Q. of 116.

The EEG was reported to be within normal limits during the initial resting state. Overventilation almost immediately produced a severe dysrhythmia with large, slow, and fast waves which persisted for a considerable time after the end of the procedure. Conclusion: Severe instability to overventilation (latent cerebral dysrhythmia).

A prescription for dilantin, 30 mgs., t.i.d., was given, and the patient has been followed since for a period of ten months. She has improved considerably, is getting along well with other children, and likes school. The mother states that she does not appear to be nervous at home, has stopped crying, and having temper tantrums.

CASE III.—B. C. F., age 7, white, male, was referred by a private physician with the complaint of behavior difficulties and inability to progress in school. He had been difficult to manage for a long time and was described as destructive, forgetful, impulsive and restless.

The patient has a twin brother who presents no problems. Family living conditions have always been adequate and compared favorably with the average farming family in this part of the country.

The birth was said to be normal, and the developmental history was non-contributory. The patient started school at the age of six and was considerably handicapped in his adjustment by his family's moving three times during the course of

the school year. The twin, in contrast, was able to adjust to these changes adequately. The teacher advised that the patient be taken out of school since she found that he was difficult to manage and probably mentally retarded.

The physical examination was essentially negative. The psychiatric examination revealed a cheerful, fairly well developed, cooperative and friendly, seven-year-old, white, male child who made good contact, talked freely, was anxious to play, and showed self-confidence. His speech was somewhat slurred and difficult to understand at times. There was a marked tendency to hyperactivity and restlessness. The Stanford-Binet, Form M, intelligence test revealed an I. Q. of 73.

The EEG showed slightly abnormal waves over the left parietal region of questionable significance. Overventilation had no effect on the pattern.

The patient was placed on dilantin, 30 mgs., three times a day. The patient has since been seen on several occasions over a period of eight months. He appeared less hyperactive, and was generally easier to manage. The mother reported that except for a period of about a week when she was unable to have the prescription refilled, she has had no special difficulties with him and has considered his behavior normal.

CASE IV.—W. J. K., age 8, colored, male, was referred by the Juvenile Court. The patient's problem was reported as truancy from home and school, stealing, lying, and "meanness" for the past two years.

The patient is the oldest of six children in a day laborer's family with rather low hygienic and dietary standards. The patient's birth was normal and followed a full-term pregnancy. At the age of ten months, the patient had a series of boils on his head accompanied by a high fever. He never learned to talk plainly although he was said to have begun speaking at the average age. He has never completely given up thumbsucking and resorts to this when confused or worried. Truancy and staying out late at night began shortly after he started to school at the age of six. He was teased a great deal by other children for his speech impediment, and was often punished for fighting back at the other boys. Because he could not deal with the patient's behavior, the father finally took him to the Juvenile Court, but this did not frighten the boy as the father had hoped, and no improvement was noted.

Physical examination was negative except for poor oral hygiene and a very questionable, inactive rheumatic heart. Skull X-rays were negative. The psychiatric examination gave the impression that the patient's difficulty was partly on an environmental basis and partly of neurotic character. On the Stanford-Binet, Form L, intelligence test, the patient scored an I. Q. of 71.

The EEG revealed "generalized cerebral dysrhythmia much aggravated by a short period of overventilation."

Dilantin, 0.1 gm., twice a day, was prescribed. Follow-up after one month of medication revealed

that the patient was getting along very well, both in the home and community, according to the mother and social agency. Since, he has not been medicated regularly because the family cannot be relied upon to provide him with the medication, and arrangements are being worked out through the Juvenile Court to make the father responsible for providing the child with medication. During periods without medication, he reverts to his previous behavior.

**CASE V.**—R. S. S., age 12, white, male, was referred by the Juvenile Court because of truancy from home and school, wandering about the streets, and lying.

The patient is the fifth of nine children and was said by his father to be the only problem child in the family. The family has always had lower-middle-class financial standards, and their social adjustment in the community has been satisfactory.

The patient's birth was normal, and the early history was negative except for a rapid succession of measles, whooping cough, and pneumonia at the age of three. At the age of seven, he suffered a compound fracture of his arm which was improperly set and required later operative correction. He started school at the age of six. He failed three times partly because of absence but mostly due to inability to do the work. He dislikes school, and his left arm is weak and slightly deformed so that he is unable to play in sports with the other children. He feels handicapped in fighting back at the other boys.

During the psychiatric examination, the boy stated that there seemed to be a voice telling him when to run away from home. On the Stanford-Binet test, Form L, the patient scored an I. Q. of 56.

The EEG was reported as follows: "The cerebral electroactivity is irregular but not definitely abnormal during the resting state. Overventilation produces large, slow waves which disappear shortly after the end of overventilation."

Dilantin, 30 mgs., three times a day, was prescribed. Follow-up studies reveal that the patient has been taking dilantin regularly, and the mother feels very definitely that it has helped him. He has not wandered away from home since he has taken the medicine and has been much easier to manage. However, he continues to have difficulties in school and family relationships.

**CASE VI.**—J. D. F., age 12, white, male, was referred by a private physician because of failure to progress in school, behavior difficulties, and occasional stuttering. It was learned that he had no difficulties at home until he entered school. He failed the first grade and has always disliked school. In the sixth grade, at the time of this referral, he was again having difficulty with his work, was discouraged, and was very difficult to manage. Suspension from school and various types of punishment employed by his family were of no avail in remedying the boy's behavior.

The patient is the fourth of five children and had

a normal birth. He showed a tendency to left-handedness, and the maternal grandmother is left-handed. A brother of the mother stutters.

The psychiatric examination showed a cooperative, friendly, quiet, and alert twelve year old boy who became uneasy when talking about his difficulties in school. On the Stanford-Binet, Form L, intelligence test, the patient scored an I. Q. of 89.

The electroencephalographic report was as follows: "During the resting state, there is present a moderate but definite dysrhythmia which is most pronounced over the occipital regions and which is slightly more marked over the right than over the left side. Overventilation produces paroxysmal exacerbations. Conclusion: Dysrhythmia and unstable cerebral electroactivity."

Dilantin, 30 mgs., t.i.d., was prescribed. The patient has been seen several times since, at six weeks' intervals, and it was learned from his family that he has presented no disciplinary problem, has gotten along better with other children and his family, especially with his father, has seemed more at ease, has shown interest in reading, and has been on the whole better composed. There has been no need to punish him at any time.

**CASE VII.**—M. E. D., age 11, white, female, was referred to the psychiatric out-patient clinic by a family service agency. The complaint was nervousness, unpredictable crying, enuresis, occasional mild vomiting after meals, and loss of interest in school.

The patient is the third of three children in a family of low economic and cultural standards. All the members of the family have shown a poor degree of adjustment and have long records with many social agencies. The oldest child is feeble-minded, the second child is in a training school as a result of his juvenile delinquency. The family inter-relationships are strained at times, and the father is known to beat the mother.

The patient's birth and development were said to be normal except for the persistence of enuresis, temper tantrums, and fingernail biting. She has always been considered "nervous"; however, she was not regarded as difficult to manage or as a behavior problem. The parents felt that some of her crying spells might be due to the fact that children have teased her about her brother being in a "penitentiary," but that her total behavior could not be accounted for on that basis.

Physical examination and routine laboratory studies were essentially negative. Psychiatric examination revealed a fearful youngster who cried and was aggressive and evasive, expressing anxiety that she too may be sent to a reform school. On the Stanford-Binet test, Form M, the patient scored an I. Q. of 71.

The EEG was reported as follows: "During the initial resting state, the record over the occipital region showed many waves of increased amplitude, abnormal form, and unstable frequency. Overventilation leads to a further increase of the abnormality both in number and extent, but after the end of the procedure, the pattern is within normal limits."

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given. Three months following the first examination, the mother reported that the child's behavior was much improved, and she was getting along better in school. A letter from the social agency, four months following examination, stated: "The child's teacher says she has noted marked improvement in her since she attended your clinic. Previously, the girl had always been 'into something,' and the teacher had to have Margaret sit right near her so the girl could be kept under close supervision. Also, the girl's attention could be held for only a short span of time. The girl is no longer a problem of this kind to any great extent." The patient has now been followed over a period of nine months, and she is progressing very satisfactorily.

CASE VIII.—J. C., age 9, colored, male, was referred for pediatric and psychiatric examinations by the Juvenile Court because of truancy from home and school, lying, stealing, unpredictable behavior and difficulty in management.

The patient is the oldest of three children and the only boy. The father is a farm worker who has been employed in the shipyards during the war. Neither father nor mother can read or write. The mother has received treatment for syphilis over a long period of time, but the patient's blood tests have always been negative. The family has received help from many social agencies in the locality.

Birth and developmental history as obtained from the family were negative. The patient started school at the age of six and has been promoted to the third grade, although he has always done poor work. The onset of the present difficulty appears to have been a gradual one and started with truancy from school. Later he frequently stayed away from home over long periods and lied concerning his whereabouts. Apparently, he has had all kinds of adventures, and since little information concerning them could be obtained from him, most was learned from outside sources.

The physical examination was negative. Routine laboratory examinations, X-ray of the skull, and serology were negative. The psychiatric examination revealed a well developed, somewhat dull, nine year old colored boy who appeared shy and evasive, but friendly, and related some of his difficulties freely while keeping steadfastly silent concerning others. On the psychometric examination, he scored an I. Q. of 65.

No history could be obtained of severe illness or convulsions at any time, but because the child claimed not to remember some episodes which were related about him, electroencephalographic study was requested. The record showed a moderate but definite generalized cerebral dysrhythmia which was further aggravated by overventilation.

A prescription for dilantin, 0.1 gram, twice a day was given. An attempt was made to influence the home environment through the help of the local social agencies.

Follow-up report, three months after the beginning of his medication, stated that there was improvement in his "nervous condition" and that he was somewhat easier to manage. It was also learned

that there had been no improvement in the home situation and that the supervision of the boy was still very poor.

Subsequent follow-up studies since have not been possible for reasons which are beyond our control.

CASE IX.—C. F. W., age 10, white, male, was referred by the local Welfare Department. The complaint was "juvenile delinquency and truancy." The mother told how the boy would bring home little things from school which were definitely not his, and which he said he had found. It was discovered, however, that these things had been taken from other children or from the counter in the ten-cent stores. The teacher had also complained that the boy was not attentive, conducted himself poorly, and that he was occasionally caught smoking in school.

The patient is the third of four children and the older one of two boys in a family of middle-class cultural standards but limited means. Patient's birth and development were said to be normal. He had the usual childhood diseases without sequelæ. However, he has had many accidents and injuries throughout his life which necessitated medical or surgical care but resulted in no permanent disabilities. He started school at the age of six and repeated the first and second grades. He never liked school very well, and the onset of his behavior difficulties is dated by the mother to the time he started to school.

Physical examination was negative. Psychometric testing showed an I. Q. of 80. An electroencephalogram was requested in view of the frequent accidents to rule out any organic basis for the boy's behavior.

The EEG was reported as follows: "During the resting state the pattern is irregular but for a boy this age it may still be in the range of normal. Overventilation produces a moderate but definite generalized dysrhythmia which, toward the end of the procedure, assumes almost paroxysmal character."

On the basis of this report, dilantin, 30 mg., t.i.d., was prescribed. It was also recommended that the patient and his mother be accepted for psychotherapy, and this was initiated by the social worker and a play therapist.

The mother stated that the boy showed considerable improvement on this combined régime. After approximately three months, the mother reported some intensification of the boy's problem at a time of upheaval in the family, and the dosage of dilantin was increased to 60 mg., t.i.d. Again the mother reported improvement. The boy is said to obey better and get along better with other children. No difficulty with stealing or truancy has been reported since the increase in dosage of medication. Over a six months' period now, it would be difficult to state whether this boy might not have improved without medication, on the basis of psychotherapy alone, or vice versa. However, it is believed that the medication at least paved the way to successful psychotherapy.

CASE X.—E. D. M., age 7, white, female, was first seen in the psychiatric out-patient clinic in July, 1944. The chief complaints were sleeplessness, temper tantrums, refusal to go to school, and disobedience. She had, during a temper outburst, made an attempt to shoot another child with a gun.

The child is the third of five children. Her delivery was normal, she appeared to develop normally, and presented no difficulties until the age of about three when a younger brother was born. She began to disobey, insisted on having her own way, refused to go to bed, lying awake for hours, and at times had spells where she would plunder the drawers in the house and tear up everything. The mother was working and could not give the child much time or attention. The father was described as easy-going, giving in rather than disciplining the child. Shortly after starting school, she began to have choking spells and screaming attacks, was inattentive in school, and made it clear that she did not care to go. Her school work was very unsatisfactory and her relationship to the teacher quite disagreeable. She was taken out of the public school and sent to a parochial school where she liked it for five days, but then the same difficulty started. It was observed that at times she produced large amounts of saliva after the temper tantrums, and at times at night. However, at no time was she unconscious, drowsy, nor did she have convulsions. About four weeks prior to examination, the patient's five year old sister was teased by one of the neighborhood boys, and the patient went to her father's roll-top desk, got a pistol, and fired it at the boy. Fortunately, the bullet missed and only frightened the children. The child was put to bed and soon fell asleep; awaking she told the whole story without memory defects.

The father is a 56-year-old railroad repair man; the mother is a 38-year old housewife. The income is moderate, and the home on the whole is quite desirable. A maternal aunt was at a state hospital, and the maternal grandmother is said to have lost her mind at the age of 50.

Physical examination revealed nothing of significance. The mental status showed a well developed, well nourished, female child who was neatly dressed and well behaved, seemed in good contact with her surroundings, and exhibited good memory. The psychometric examination on the Stanford-Binet test, Form L, revealed an I. Q. of 94.

The electroencephalographic examination was reported as follows: "The recordings show only minor irregularities during the resting state but a marked instability to overventilation which lasts for a considerable time after the end of the procedure. The findings are of the type often seen in children with behavior disorders and temper tantrums."

The child was put on dilantin, 0.1 gram, b.i.d. At first, monthly check-ups were made which later extended to check-ups once in three months. Ever since the first visit and medication, the child has been getting along very well, doing good work in school and playing peacefully with other children,

has presented no unusual difficulties in management, and has shown no excessive irritability or conduct disturbance. She was last seen eighteen months after the first examination and is at present kept on dilantin, 0.1 gram, once a day, with very satisfactory results.

## DISCUSSION

Since the original report by Jasper, Solomon, and Bradley concerning abnormal electroencephalographic findings in child behavior disorders, considerable work has been done in the field. The relationship of the behavior disorders to epileptic states, the so-called epileptic, or epileptoid personality, of patients afflicted with behavior disorders has been elaborated on, and more recent findings also indicate the possibility of some relationship between cerebral dysrhythmias and neurotic disorders in some cases.

For theoretical purposes, it may be assumed that some behavior disorders of the conduct type, as well as some behavior disorders of the neurotic type may have a common basic principle which lies primarily in a disturbance of function of the central nervous system and is not primarily of simple psychogenic or environmental etiology. The response to dilantin, of some patients with psychotic states, as outlined by Putnam and Kalinovsky and later by Freyhan and the case described by Brill and Walker which belonged in the group of constitutionally psychopathic personalities, are of further significance in this line of thought. It is not known at this time what might be the underlying mechanisms causing the disturbance in the cerebral activity, and secondarily probably in the behavior.

An attempt has been made by Strauss, Rahm, and Barrera to segregate the group of behavior disorders with positive electroencephalographic findings as so-called epileptoids and to subdivide the group into so-called (1) symptomatic epilepsy in which the epileptoid behavior originates from an organic pathology of the brain indicated by focal cerebral dysrhythmia, (2) "idiopathic epileptoid with a possible relationship to epilepsy as indicated by the presence of cerebral dysrhythmia," and (3) pseudo-epileptoid in which there is a group resemblance in the behavior to that of epileptics but in which no

abnormal electroencephalogram was found. In the group studied here, the symptoms do not appear necessarily to indicate a definite relationship to the symptoms commonly presented by epileptic personalities. It appears, rather, that we are dealing with a mixture of features in which we find neurotic difficulties, retardation in development, impulsive behavior, dullness, and regression as well as retirement from the environment and aggressiveness. It is of interest that there was no known history of epilepsy in the family in any of the cases. Lennox has pointed out that only in one out of five cases of epilepsy is a family history of convulsions obtained and, of course, it has been shown that a large number of relatives of epileptics show positive electroencephalographic evidence of cerebral dysrhythmia without direct clinical evidence of such.

Behavior disorders, as a diagnostic entity, include such a variability of symptomatology with a possibility of manifold etiology that at the present state of investigations any light which can be shed upon the subject with the help of one particular method, namely the electroencephalogram, must be welcomed. Yet the findings obtained must be explored slowly and regarded with reservation. The authors would be inclined to hesitate to accept a subdivision or classification of behavior disorders at this time purely on the basis of electroencephalographic studies. A negative electroencephalographic report is not necessarily of positive significance. One might, for example, wonder whether some so-called behavior disorders whose electroencephalographic recordings reveal no abnormalities under standard conditions, might not produce abnormal recordings under special conditions, such as after increased strenuous activity, or hydration with pitressin test, or similar devices. It is further possible that more evidence of cerebral dysrhythmia could be found if our methods of electrical examination were in a more advanced state. Too little is known generally about metabolic conditions of the central nervous system and the influence of metabolic factors on behavior and on electroencephalographic recordings.

For the present, however, although it is definitely premature to make any statements

concerning the basic nature of any of the behavior disorders, it appears encouraging that at least some objective evidence of cerebral dysfunctioning can be obtained and translated into therapeutic terms.

In this frame of thought, a heterogeneous group of patients with heterogeneous symptoms is being presented here. The fact that all of the patients showed abnormal electroencephalographic findings, primarily signifying cerebral dysrhythmia, while clinically not suspected of epilepsy, and the fact that they responded to dilantin therapy are considered points of significance in the presentation. The children were from various stations of life, of different intelligence, and from a physical standpoint healthy. The attitude of their various environments towards their difficulties was one of rejection rather than sympathy. In other words, the attitude was one expressed against a social handicap rather than against a disease. Nevertheless, it was shown that the children responded to therapy regardless of environmental factors or psychological situations and that the disorder, namely their "bad behavior" could apparently be controlled or ameliorated through an approach directed at the cortical cerebral activity.

The significance of the above study, in relation to recognition of the disorder and treatment of these difficulties, as well as prevention of further difficulties, is extensive and demands further study in the field. The importance such early recognition and treatment can have, in the prevention of long-term development of personality disorders and conduct disturbances, in the prevention of institutionalization and the advantage of leaving the children in their home environment, adequately warrants intensive further investigation.

#### SUMMARY

A group of behavior problem children with abnormal electroencephalographic findings were treated with dilantin.

None of the children presented clinical evidence of epilepsy or were known relatives of epileptics. The physical and neurological examination of all the children was negative. None of the patients were adequately con-

trolled by their environment previous to treatment. All were treated on an out-patient basis and showed definite clinical improvement under dilantin treatment.

The results are considered encouraging and warrant further follow-up and study.

The implications and significance of recognition and treatment of these cases in terms of prevention or amelioration of adult neuropsychiatric difficulties are discussed.

#### BIBLIOGRAPHY

1. Jasper, H. H., Solomon, P., and Bradley, C. Electroencephalographic analyses of behavior problem children. *Am. J. Psychiat.*, **95**: 641-658, 1938.
2. Lindsley, D. B., and Bradley, C. Electroencephalography as aid to understanding certain behavior disorders of childhood. *Ztschr. f. Kinderpsychiat.*, **6**: 33-37, 1939.
3. Lindsley, D. B., and Cutts, K. K. Electroencephalogram of "constitutionally inferior" and behavior problem children. *Arch. Neurol. and Psychiat.*, **44**: 1199-1212, 1940.
4. Strauss, H., Rahm, W. E., and Barrera, S. E. Studies on group of children with psychiatric disorders. *Psychosom. Med.*, **2**: 34-42, 1940.
5. Secunda, L., and Finley, K. H. Electroencephalographic studies in children presenting behavior disorders. *New Eng. J. Med.*, **226**: 850-854, 1942.
6. Brill, N. Q., Seideman, H., Montague, H., and Balser, B. H. Electroencephalographic studies in delinquent behavior problem children. *Am. J. Psychiat.*, **98**: 494-498, 1942.
7. Jenkins, R. L., and Pacella, B. L. Electroencephalographic studies of delinquent boys. *Am. J. Orthopsychiat.*, **13**: 107-120, 1943.
8. Solomon, C. I., Brown, W. T., and Deutscher, M. Electroencephalogram in behavior problem children. *Am. J. Psychiat.*, **101**: 51-61, 1944.
9. Michaels, J. H., and Secunda, L. Relationship of neurotic traits and electroencephalograms in children with behavior disorders. *Am. J. Psychiat.*, **101**: 407-409, 1944.
10. Michaels, J. J. Relationship of anti-social traits to electroencephalogram in children with behavior disorders. *Psychosom. Med.*, **7**: 41-44, 1945.
11. Silverman, D. Clinical and electroencephalographic studies on criminal psychopaths. *Arch. Neurol. and Psychiat.*, **50**: 18-33, 1943.
12. Hill, D., and Waterson, D. Electroencephalographic studies of psychopathic personalities. *J. Neurol. and Psychiat.*, **5**: 47-65, 1942.
13. Strauss, H. Clinical and electroencephalographic studies: electroencephalogram in psychoneurotics. *J. Nerv. and Ment. Dis.*, **101**: 19-27, 1945.
14. Putnam, T. J., and Merritt, H. H. Dullness as an epileptic equivalent. *Arch. Neurol. and Psychiat.*, **45**: 797-813, 1942.
15. Lennox, W. G., Gibbs, E. L., and Gibbs, F. A. Inheritance of epilepsy as revealed by the electroencephalogram. *J. A. M. A.*, **113**: 1002-1003, 1939.
16. Lowenbach, H. Electroencephalogram in healthy relatives of epileptics: constitutional elements in "idiopathic epilepsy." *Bull. Johns Hopkins Hosp.*, **65**: 125-137, 1939.
17. Hill, D. Cerebral dysrhythmia: significance in aggressive behavior. *Roy. Soc. Med. Proc.*, **37**: 317-330, 1944.
18. Ross, I. Electroencephalographic findings during and after acute encephalitis and meningoencephalitis. *J. Neurol. and Psychiat.*, **102**: 172-182, 1945.
19. Gibbs, F., Bagchi, B. K., and Bloomberg, W. Electroencephalographic study of criminals. *Am. J. Psychiat.*, **102**: 294-298, 1945.
20. Gibbs, F. A., Bloomberg, W., and Bagchi, B. K. Electroencephalographic study on adult criminals. *Trans. Am. Neurol. Assoc.*, **68**: 87-90, 1942.
21. Cutts, K. K., and Jasper, H. H. Effect of benzedrine sulfate and phenobarbital on behavior problem children with abnormal electroencephalograms. *Arch. Neurol. and Psychiat.*, **41**: 1138-1145, 1939.
22. Lindsley, D. B., and Henry, C. E. Effects of drugs on behavior and the electroencephalograms of children with behavior disorders. *Psychosom. Med.*, **4**: 140-149, 1942.
23. Bradley, C. Problem children: electroencephalographic diagnosis and pharmacologic treatment. *Conn. Med. J.*, **6**: 773-777, 1942.
24. Brown, W. T., and Solomon, C. K. Delinquency and electroencephalograph. *Am. J. Psychiat.*, **98**: 449-503, 1942.
25. Kalinovsky, L. B., and Putnam, T. J. Attempts at treatment of schizophrenia and other nonepileptic psychoses with dilantin. *Arch. Neurol. and Psychiat.*, **49**: 414-420, 1943.
26. Freyhan, F. A. Effectiveness of diphenylhydantoin in management of nonepileptic psychomotor excitement states. *Arch. Neurol. and Psychiat.*, **53**: 370-374, 1945.
27. Kubanek, J. L., and Rowell, R. C. The use of dilantin in the treatment of psychotic patients unresponsive to other treatment. *Dis. Nerv. System*, **7**: 47-50, 1946.
28. Brill, N. Q., and Walker, E. F. Psychopathic behavior with latent epilepsy. *J. Nerv. and Ment. Dis.*, **101**: 545-549, 1945.

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## RACIAL ASPECTS OF EMOTIONAL PROBLEMS OF NEGRO SOLDIERS<sup>1</sup>

RUTHERFORD B. STEVENS, M.D., TOPEKA, KANS.

For those who have recognized on many occasions the failure to understand Negro Americans on the part of their white fellow citizens, it was not a surprise to learn that many military psychiatrists felt insecure when dealing with the emotional problems of Negro soldiers. This insecurity is easy to comprehend if one realizes that the military psychiatrist, to be practical and effective, must work on the level of the common soldier and speak his language. To do so was especially difficult for white medical officers when dealing with the Negro soldier, because most of them have been subjected throughout their life to many false concepts of the Negro.

The purpose of this paper is to aid the psychiatrist and others dealing with the emotional and other health problems of Negroes to get a better understanding of the Negro patient. It explains reactions of Negro soldiers to racial segregation and discrimination, and is based upon observations made within the Zone of the Interior during the war. Developed in the United States with peculiar intensity, these racial factors are partially responsible for the incidence of psychiatric disorders of Negro soldiers. Since in civil life, racial discrimination prevails fully as much as in military service, a better understanding of its effects will prove of value to anyone who may deal with the health or emotional problems of the Negro. Unquestionably, in post-war America large numbers of Negroes need psychiatric care and will go in search of it to civil and industrial hospitals and clinics as well as to the hospitals of the Veterans Administration.

The observations on which this paper is based represent five years of military service in varied capacities with Negro troops, including assignments as platoon leader and company commander in an infantry regiment, battalion surgeon (infantry), commander of a company of medical students in the Army Specialized Training Program and Consulta-

tion Service psychiatrist in Army Service Forces Training Centers with relatively large Negro populations. These assignments permitted close contact with large numbers of Negro soldiers of varied educational and environmental backgrounds, ranging from the marginal inductees commonly found in ASF training centers to the college graduates of the medical ASTP unit. An advantage possessed by the writer in dealing with Negro soldiers was the absence of the barrier of racial difference. He did not have to overcome those defenses which the white psychiatrist was compelled to evaluate more or less blindly in arriving at his conclusions.

It should be unnecessary to call attention to the fact that Negroes are not all alike. Negroes differ from one another as much as any citizen of our country might differ from any other citizen. It is difficult to conceive of a statement beginning with "All Negroes are . . ." which would be true. However, although there are Negro millionaires, the majority are in the lower economic classes; there are many Negro Ph.D.'s, but the majority are poorly educated; there are many Negro scientists and master craftsmen, but the majority are unskilled. It is an accepted scientific fact that these conditions are not the result of any biological racial inferiority. It is understood that the Negro needs only equality of opportunity to make progress equal to that of other races in America.

A characteristic of Negroes, and one that few of our white citizens have had an opportunity to observe, is that the vast majority are intensely interested in and conscious of their race, and resentful of the imperfections of our democracy. This characteristic, so eloquently presented by Negro literature, is still hidden from great numbers of the white race, probably, at least in part, because for many generations the Negro in the South has found that it is much easier to get along with the white man if he tells him only those things which he believes the white man wishes to hear.

There is much evidence to support the

<sup>1</sup> Read at the 102nd annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.

concept that good motivation and morale bear an inverse relationship to the incidence of wartime psychiatric disorders. As a result of this evidence the War Department expended great effort towards improving the motivation and morale of our soldiers. Experience as a psychiatrist in a consultation service fostered the belief that poor motivation and morale caused a high percentage of referrals, and that poor motivation in the Negro not unusually originated from racial factors, which were superimposed on the usual personal factors. While segregation and discrimination may be considered direct racial factors, some of the normal personal factors affecting motivation in the Negro are so influenced by race that they may be considered indirect racial factors. For example, the poor economic status, poor medical care and lack of education of many Negroes prior to induction, which were undoubtedly influenced by race, resulted in poorer health with an accompanying increase in chronic ailments, lack of ambition or goal, and diminished industry, all of which added to the difficulties Negroes experienced in adjusting to the military régime.

There is general agreement that the motivation of American soldiers to fight was less than that of the troops of most other large nations involved in the war. The American apparently fought mainly because he had to. Several factors, however, worked toward increasing the motivation of the Negro inductee. First, the fact that most Negroes, as a result of their lack of acceptance in our society, gain, at an early age, a deeper understanding of democratic ideals as expressed in our Constitution and Bill of Rights than many Americans; consequently they were able to comprehend what was at stake in the war against fascism. The Negroes' belief in democracy is positive because it is a goal toward which he is striving, rather than an accepted heritage of the past. Other factors affecting the motivation of the Negro include: the feeling of many that military service offered the chance to satisfy the long frustrated desire to be thought of as full-fledged Americans; the hope and expectation of many that the war would result in an improvement of conditions affecting their race in this country; the fact that in many

cases army pay and allotments were greater than the meagre incomes from civilian jobs; and a feeling that military service offered easy flight from a mode of living with which they were dissatisfied. The observation of these feelings in Negroes entering the army has led to a belief that their motivation was generally stronger than that of the white inductee.

Now let us consider the experiences of those relatively well motivated inductees in military service. They had entered the army in large numbers from the great industrial centers of the North and the farms and cities of the South and West. A proportionately large number were of marginal literacy but the majority were fully capable of becoming good soldiers, and many had skills and abilities much needed by our armed forces. Certainly there was no stereotyped Negro soldier.

The first important racial factor encountered by the Negro inductee was segregation. He found himself separated from all other inductees and placed in a Negro American unit rather than just an American unit. Segregation, however, did not immediately deteriorate motivation as some might have expected. In fact, the majority of Negro inductees apparently accepted segregation docilely, and their attitude may be explained by their strong motivation to serve combined with varying degrees of adjustment to this form of frustration gained from previous experience. The type and degree of adjustment was naturally dependent on the amount and frequency of frustration engendered by this factor in the Negroes' civilian environment.

The reaction of Negro inductees to racial segregation may be clarified by dividing them into three general groups dependent on previous experience, and discussing the reaction of each group: First, just as the doctrines of racial superiority of the Germans and Japanese proved convincing to many of their nationals, the doctrine of Negro racial inferiority and "White Supremacy" has proved convincing to some Negro as well as white Americans. The Negro inductees in this group, who undoubtedly constituted a minority, could have been expected to approve segregation. They probably would

have suffered emotionally if the army had operated on a truly democratic basis. Experience during the war has indicated that this group was much smaller than has been generally assumed, especially by the southern white man, and that the main reason for this difference was the habit, noted above, of many southern Negroes of telling the white man only those things he believes his Caucasian fellow citizen wishes to hear. The second group, comprising the majority of Negro inductees, was not so well protected against reaction to this factor. Although they were bitter and resentful, however, their motivation was not immediately dissipated, due to the fact that in civilian life they had achieved a more or less satisfactory adjustment to racial frustrations, and foreknowledge of segregation in the army helped them to avoid severe emotional trauma from this cause. The third group was formed by those who had lived in an environment where democracy is practiced appreciably. Probably a few of them had never been confronted with the doctrine of racial inferiority. Others prior to induction had avoided situations threatening the Negro with emotional trauma from race discrimination. In general, the reaction of members of this group against segregation in the army was most severe when they first learned about it. By the time they were inducted, most of them had accepted the hopelessness of a struggle against an army custom in time of war, and began their service with bitterness and resentment directed towards an army that did not practice the principles for which it was ostensibly fighting. A few utilized the courts in an effort to avoid induction into a segregated army. Numerous others were rejected by the psychiatrists at induction examinations after they verbalized their feelings.

Although the effect of segregation on the Negro inductee was not dramatic and immediate, it was continuous. It produced an emotional cancer, whose growth depended to a great extent on the other important racial factor, discrimination.

In order to evaluate reaction to race discrimination, one must first appreciate the effect of military service (in segregated units) on the psyche of the Negro soldier, remembering that the military environment

constantly changed the individual so that previously learned adaptations could no longer give satisfactory protection against the old frustration. This influence is more easily understood when one examines some of the practices of discrimination and their effect on the life of the Negro soldier. A short time after beginning his training he usually found that there was little for him to do during his off-duty hours because of inadequate facilities for recreation and entertainment. He compared these unfavorably with the facilities available for white troops. He learned that there were athletic teams and other activities at his installation from which he was barred or discouraged. He read the post newspaper and found that although there were thousands of Negro soldiers on the post, there was very little in the paper that directly concerned them. He frequently found himself assigned to a quartermaster or service engineer unit. It was difficult to make any troops in those services understand the full importance of their effort. The Negro soldier in those branches, furthermore, was usually not in close contact with the white soldiers in the same type of units and therefore felt that the dirty work had been given to him. Another depressing factor was the lack of Negro officers and headquarters personnel in many organizations. Negro officers are not necessary to lead Negro troops (good leadership is needed for all troops, and is certainly not dependent on race), but the absence of Negro officers and headquarters personnel caused a feeling of inequality of opportunity which was easily dramatized.

Because the Negro soldier was most often garrisoned in southern states, whenever he left the camp he was confronted with all the racial bigotry of nearby communities. Whereas, before induction he may have been adapted in some degree to segregation and discrimination, he expected now that his uniform—which indicated that he had been called to spill his blood, if necessary, in defense of his native land—would mitigate their evils. Instead he frequently found these evils to be aggravated because of the fear of many in the community that he might forget his allotted place of inferiority. These community attitudes were frequently strength-

ened by the official acts of commanding officers, who sometimes placed entire towns and large portions of cities off limits to Negro troops. Commanding officers, too, frequently failed to protect the wearer of the uniform, when he was a Negro, against unwarranted brutality by civilian policemen and other public servants. Although the daily community papers read by the soldiers rarely gave much space to instances of brutality, the Negro papers always gave space to even the smallest racial incident on a national basis. Although not usually available at the post exchanges, the Negro papers were always obtained and avidly read by Negro soldiers. Inadequate recreational facilities granted the most verbal ones plenty of time to discuss with others incidents and policies that indicated he was a Negro American soldier rather than just an American soldier.

Negro soldiers, finally, were frequently commanded by white officers whose attitudes toward race were to some degree fascist. Even where the racial attitudes of white officers, if understood, would have been acceptable to the soldiers, they frequently alienated their troops by failure to understand that the Negroes, like other minority groups, are hypersensitive about some things which appear to be of little importance to the majority. Examples are calling soldiers by their first names or nicknames, the use of words or statements which indicate that the officer considers himself fundamentally different from his troops, and the use of certain words which have become distasteful to Negroes, such as "boy." No attempt is made in this paper to list all the factors which were demoralizing to Negro soldiers as such. But, if one considers those which have been cited, together with the fact that constant discussions of racial incidents and policies resulted in a crystallization of resentment and an increase in frustration, the damage to motivation and morale and the consequent increase in the incidence of psychiatric disorders among these soldiers can be appreciated.

The War Department did take action to correct inequalities in recreational facilities by means of a letter (July 1944) which indicated that army recreational facilities were

for the use of all troops and there should be no discrimination on a racial basis. Although this action proved ineffective at most installations, it had an important salutary effect on the mass of Negro soldiers because it added a ray of hope to an apparently hopeless situation. This is especially important from a psychiatric viewpoint since only frustrations without hope of solution are entirely destructive.

As a direct or indirect result of racial practices common in most parts of our country, many Negroes had learned to distrust white people long before entry into military service. Because of the nature of military service, the gratification of many desires of the Negro soldier was dependent on or even at the mercy of his immediate commanding officer. Whether he was the recipient of good will, neglect or malice depended to a great extent on the attitude of this officer. When his complaints were misunderstood or unheeded for a long time, it was only natural that a marked sense of insecurity would develop with accompanying anxiety and without the opportunity for relief afforded by contact with someone he trusted. When this state of chronic emotional tension became sufficiently severe, one of several varieties of behavior would emerge. In some cases a more or less typical anxiety syndrome resulted; others developed somatic complaints or were plagued by an exacerbation of pre-existing problems; still others developed antagonistic and rebellious attitudes often accompanied by military delinquency.

Those who openly expressed antagonistic or rebellious attitudes were likely to find themselves in the guardhouse. Needless to say, this disciplinary measure was rarely helpful. Other types of reaction, when noted, invariably sent the soldiers to sick call and their dispensary physician. Unfortunately, these physicians, as a consequence of the organic and physiologic tradition in medicine, often failed to recognize or consider the emotional components of the soldiers' complaints. When, as was most often the case, examination did not reveal organic disease, they were treated symptomatically, and this practice resulted in frequent return visits often complicated by an exaggeration

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of complaints in an effort to get attention and relief. The harassed physician then usually referred them to numerous consultants where organic clearances were obtained and then charged or implied that these men were malingering. Meanwhile, the emotional tensions of the soldiers were increased by a belief that they were being denied good medical care for symptoms, and as a result the symptoms tended to become fixed. After varying lengths of time they were referred to the psychiatric consultant by their commanding officer, dispensary physicians, surgical or medical consultant, or chaplain.

Before considering the meeting of these soldiers with the psychiatrist, let us reconnoiter the ground on which they meet. Soldiers in general understand very little about the psychiatrist. However, they have heard that he is an officer who gives Blue (without honor) Discharges to men he thinks are a little "psycho," puts men who are more "psycho" in the hospital, and returns those he believes are not "psycho" to duty. The soldiers are anxious to avoid return to their previous situation, do not want a Blue Discharge, and many of them have little confidence in the hospital because of their previous experience with doctors and the rather common belief that the Negro soldier must be "almost dead" to get a medical discharge. Those with sufficient aggressiveness may make a decision and plan their attack. Sometimes the decision is to get out of the Army at any cost, and they embellish their history with marijuana or other drug addiction, alcoholism or sexual perversion. When they desire hospitalization they may exaggerate all their nervous symptoms. If less aggressive, they will probably depend entirely on the somatic complaint which they believe is incapacitating.

Personal contact with many military psychiatrists has led the writer to conclude that they differ markedly in their understanding of the emotional problems of the Negro, especially when those problems are affected by or are the result of racial factors. One psychiatrist, after offering a rather dogmatic opinion concerning the Negro to a small group discussing this subject, admitted that his knowledge was the result of eight years of contact with his office maid, who was a

disciple of Father Divine. Another, after drawing a broad conclusion concerning Negro soldiers, admitted that his conclusion was based to a great extent on contact with six Negro members of a religious cult with doctrines that at least bordered on the subversive. Perhaps these examples are extreme, but there is little doubt that many psychiatrists have been affected by the motion picture and newspaper portrayal of the Negro. Certainly many fail to understand that a history of intermittent school attendance and frequent changes of jobs is not in some communities indicative of emotional instability, but the result of an effort to survive. They are not aware, furthermore, that freedom from psychopathic traits and a high degree of morality does not protect the Negro from numerous arrests on suspicion in many communities. Examples of this lack of understanding may be found in recent medical literature where studies have been published in which as many as 50% of Negro soldier patients were diagnosed as psychopaths.

Even a good understanding of the racial aspects of the emotional problems of Negroes is of little value if the examiner is unable to obtain rapport with his patient. It would be extremely helpful if a magic formula for gaining rapport with the Negro patient could be presented to the white psychiatrist. Unfortunately, no formula can be offered that will create a positive emotional response on the part of the patient toward the examiner with the necessary elements of confidence, trust and mutual good will. However, a better understanding of racial factors and their effect on emotional disturbances in Negroes would undoubtedly be of aid to the examiner.

The statements just made concerning rapport may be repeated in regard to therapy. In military clinics psychiatric treatment was limited to a great extent by time. However, the patient whose emotional disturbance has strong racial aspects will probably become completely amenable to therapy only when he believes the examiner understands the racial as well as the other aspects of his problem. The fact should also be kept in mind that frustrations due to race, as well as those engendered by other causes, are

most damaging to the emotional well being when their solution appears hopeless to the patient. Understanding discussion of racial factors has therapeutic value in itself, and aids in convincing the patient that his problem is solvable. After rapport is gained, good therapeutic results may be obtained in many cases by the simple process of reeducation of the patient as to the nature of his complaints, increasing his self-esteem, and appealing to his self pride and race pride.

In conclusion, and without equivocation, the best method of treatment of emotional disturbances caused by racial factors is *pre-*

*vention*. The writer is confident that absence of segregation and discrimination in our armed forces would have greatly reduced the incidence of psychiatric illness among the 920,000 Negroes in uniform. And this is far more than a military problem in wartime. It should be obvious that psychiatrists, not to mention all the others who deal with the health problems of American citizens, of whatever color, have a duty to society and to themselves to study, understand, and aid in the prevention of these problems by furthering the practice of the principles of real democracy.

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## MENTAL ILLNESS AMONG NEGRO TROOPS OVERSEAS<sup>1</sup>

LT. COLONEL HERBERT S. RIPLEY, M. C., O. R. C., AND

MAJOR STEWART WOLF, M. C., O. R. C.

The incidence of mental illness is commonly considered to be greater among the troops in theaters of war than in similar groups of soldiers stationed in the continental limits of the United States, or among civilians. This discrepancy must stem, in part, from the inability of the individuals concerned to adjust to the stern environment in which they find themselves. Since there appeared to be an unusually large number of Negro soldiers showing failure to adapt to army service overseas, an investigation was undertaken of the incidence of and dynamic factors in mental illness among troops both Negro and white in garrison at Biak, a tropical coral island in the Netherlands East Indies.

The patients were studied on the wards and in the out-patient department of the 9th General Hospital and data were obtained from other hospitals on Biak where Negro and white troops were treated. The personnel of three service units which were composed of Negro enlisted men under white commissioned officers were studied in detail and the findings compared to those obtained from a similar study of a white service unit of approximately the same numerical strength as the three Negro units combined.

### QUARTERMASTER SERVICE COMPANY NO. 1

This Negro unit was organized in May 1943 as a Quartermaster Service Company and received training at Fort Custer, Michigan. Nearly all of the men were recent draftees from the New York-New Jersey area. Before coming overseas their commanding officer, who was well liked, was transferred to another company. He was succeeded by a strict, humorless man who was unpopular but considered to be fair.

The unit went overseas in November 1943

to Sydney, Australia. After two weeks they were shipped to Milne Bay. On January 7, 1944, they were moved to Oro Bay and thence to Cape Gloucester where they landed on January 13, a few days after D-day. There they were subjected to difficult living conditions and enemy bombings. The rains were heavy, the food poor and their work of building an airstrip hard. They took part in the landings at Hollandia and Biak under conditions of moderate peril from bombings. During the 14 months on Biak the unit did laboring work at a quartermaster dump. They lived in tents without floors, had few comforts and little recreation at first, but when the conquest of the island was secure they were moved to a reasonably comfortable area where facilities for baseball, radios and motion pictures were provided.

There were 15 courts-martial among these men, mostly for pilfering or refusal to work. Furloughs to Australia were given to only two individuals during the 21 months of service overseas. As in other companies, sexual tension was increasingly troublesome to the men and rose sharply after the arrival in February 1945 of a large company of white women of the WAC with whom the Negro soldiers were unable to associate socially. There occurred a corresponding increase in homosexual activities, and six habitual homosexuals in the organization no longer had to pay their partners. During and after a Japanese air-raid on Biak in March 1945, in which a large number of white men were killed and injured, several men in this organization became intensely fearful although none had been injured.

A total of 154 men from this organization was hospitalized on Biak, 76 of these in the 9th General Hospital; and of the 25 with psychoses, 35 with minor psychiatric disorders and 94 with medical and surgical conditions, 21, 17 and 38, respectively, were studied in the 9th General Hospital. Twenty-one were treated in the neuropsychiatric out-

<sup>1</sup> From the 9th General Hospital, United States Army, and the Departments of Medicine and Psychiatry of The New York Hospital and Cornell University Medical College.

patient department and 21 in the medical and surgical out-patient department of the 9th General Hospital.

The situations which were common to others in the groups studied have been well described in the unedited diary of one of the men from this unit. The viewpoint of this individual was characteristic. His first impressions of the combat zone were recorded thus:

*January 13, 1944.*—The place look very bad. A lot of bomb hole. We had to get off in water over our waist. And we had all our equipment on. Some of the boys fell down. The wave was very bad. The marines told us some weary story. We had to go right to work too. When we got finished we had to find a place to pitch camp. We were giving a place in the jungle to sleep. We had to pitch our little pup tent. None of us slept much that night. We hear a couple of shot and that all. Rain came all in our tent. And then there was an air raid and we were scare to death. The Jap drop bomb down by the air port.

*January 14.*—We got up and had jungle ration. It is terrible food. We had to sit around and found out we were going to move to. We move to one spot but the marines beat us to it.

We had to move again to a much better area. It was nice and clean. The cleanest spot on the island. We just know this couldn't be true. Anyway we put up our tent, and got the area clean up. We had the best place on the island, camp, tent and mess hall. The marines didn't have anything. When we eat, a lot of them come over and eat with us. We didn't mind. And they always told us some hell of a story. Then a lot of the fellow dig them self a fox hole. An some didn't. That night we had three air raid. Again they bomb the airport. Three was kill and 27 injury.

*January 15, 16, 17.*—These days we went on detail. We seen some Jap skull. Nothing new happen but we had a day air raid. And every night we had 4 or 5 air raid. And it rain every day and night we having seen the sun yet. And we still had to work in all the rain. And we had a lot of round two. We were just 2 miles one way and 6 miles another way from the front. And there are Japs out there behind our lines.

There was so much unnecessary shooting of guns that the authorities confiscated all their firearms. This indignity added to the desolate feeling of the soldiers. The loneliness, terror and boredom of the soldier who kept the diary were well expressed in his own words:

*January 28.*—My son birthday. I sat down a long time by myself and start thinking of when he was born last year. I felt very bad. Still raining and air raid.

*January 29.*—This is a day I will never forget as long as I live. We were working on the dock. And about 3 O'clock. About 10 fellow and myself was sitting on the shore. And the other men were unload ammunition on a small boat. Then all of a sudden. A Jap zero shot down out of know where and drop a bomb. I was the nearest one to where the bomb hit. About 40 or 50 feet away. It land about 3 feet out in the water. The power from the explosion knock me over. And the fellow sitting on the other side of me got hit in the stomach. And another one of our boys got his hand almost blow off. His hand was cut right up the center of his hand. I will never forget his hand. About 8 marines got hurt. Nobody got kill. I was very lucky to not get hurt.

*January 30, 31.*—The boys that got hurt left and when back to the main land. They might go home. Things are about the same. I haven't received any mail. Feel down and out.

*February 6.*—Still raining. Had a bad daylight raid. They shot at him but miss. Then two came back that night. It was like 4 of July. Everybody was shooting. Big flare was going of. An the big spotlight was turn on him. He ran like the devil. They miss him. Boy were we scare.

*February 10.*—A roomer that we might have a parachup invasion. But they having gave us our rifle back yet. They kept us up all night with raid. They drop a lot of bomb. We didn't shoot any down.

*February 11 to 25.*—Things are pretty safe now. We have been playing a lot of softball. I am booking agent for the team. Still raining hard and hot. I also wrote a letter to Blanche that I wish I never did write. I guess the devil made me write it. I am sorry about it. We seen our first movie show on the island yesterday.

The letter to Blanche was prompted by his not having heard from her in a week, and in it he implied that she might be being unfaithful.

About six men were wounded at Cape Gloucester. None was killed in battle but one man was drowned during recreational swimming.

On April 22 the unit made the D-day landing at Hollandia.

*April 20, 21.*—We was at last told that we are going to Dutch Guinea. That didn't make us feel to good. We know that there are three air field there and the Jap was sure to put up a fight. Then from know where more ship came up then I ever seen before in life. There was over three hundred ship in our convoy now. All kind of ship you could name. That made us feel very nice and good.

*April 22.*—It was early in the morning, just about dust. We could just see the land. We was moving in very slowly. Then the convoy split up into three parts. Then the convoy and destories and corvices move up in the front and they all started shelling. I never seen so many shell. Then the Hell Diver

came off the aircraft and start bombing and shotting all over the island. They kept this up for about 45 minutes. We was looking for Jap planes in the air at any second. But there were none. Then the infantry start going ashore in duck and anph tanks. Then the LST start going into shore. We pull up to the beach and we had to run off and drop our equipment and start unloading the ships on the double. Then they said Jap plane. We all ran and hit the dirt or any hole near by. One boy jumps in a hole the Jap had for a latrine and did it stink. But it was only some of our planes going over.

Then I seen a big crowd down the beach. I when down to see what it is. It was General MacArthur. I went to see him. They was taken his picture. I think they took mind to. Because I was that close to him. Then a colored boy from another outfit caught a Jap with a knife.

*April 23.*—Today is my wife birthday and I have been in the army one year today. I was feeling very low today thinking of my wife and family as always. We eat and had to go down to the beach and work. We was working on ammo. And we heard that the infantry was moving very fast. That made us feel good. We go finish work late again that night. An before we go off. A Jap bomb that was laying on the beach went off. It was right by a fire which our shell hit the first day. When it go off we started going back to pancake hill to our hole. But we couldn't get by because a MP was standing down by the fire and said know one could pass. So we had to stay on the beach around the ammo all night. We started to eat our ration. An we heard a Jap plane. We all lay down. And we hear him dive. And then his bomb hit right in the middle of us. The tree I was laying under was on fire and all around me was burning. I didn't know which way to go. I ran to the beach and ran pass the other fire where the Jap bomb was laying and ran all the way to Pancake hill. After I got there some of the other fellow came up. We stood on top of the hill and watch the fire. It caught on to the ammo and it started exploding. I just knew a lot of our fellow got kill. The ammo and all the food was on the beach. And the ammo went off all night. We couldn't sleep for the noise. Then some one said the Jap was landing on the beach in barges. We was scare stiff, But it was only our barges.

*April 24, 25, 26, 27.*—The ammo and fire is still going off. We got our equipment and move to the other island. We made a count of our men. And about 30 was in the hospital and 5 missing. Some of our boys came out of the hospital and was just shook up.

*April 28 to 30.*—Things are going pretty good. Some of our boys that was in the hospital was send back to the mainland to a good hospital. Only one die. An a boy was in very bad shape. We hope they all will be alright. We when to a native village in our spare time and that is where I got drunk. I had that beer and whiskey. Some of the natives didn't look bad. And they were very nice. One of the boys took some pictures.

This disastrous Japanese bombing of the supply and ammunition dumps had impressed forcibly all of the soldiers from this organization and may have constituted an important stimulus to anxiety. Mention of homesickness occurs repeatedly in the diary.

*July 5.*—Today is my wedding anniversary. I am feeling very low today. I am so homesick. And to think I was thinking of you and thinking of me and I could get near you. I took out your picture and drank my beer and thought and thought.

The fighting had subsided. There was nothing but laboring work to do. The unit was assigned to the job of unloading supplies at the Base Quartermaster Depot. The emptiness of this one man's life was oppressive and he did not feel able to keep his diary any longer.

#### QUARTERMASTER SERVICE COMPANY No. 2

This organization, made up of Negroes from nearly all states in the United States, but mainly from the south, came overseas directly to New Guinea in February 1944. While in the United States the personnel had been members of an Anti-Aircraft Coast Artillery Unit which was stationed on the Canadian border for a year.

During the fall of 1943 the Anti-Aircraft Battalion had been dissolved and the unit converted into a Quartermaster Service organization. The reason for the conversion was not divulged, but the company officers suspected that it was because of the generally low level of intelligence of the men. Only four men had an Army General Classification Test <sup>2</sup> above Grade IV. In general the men resented the change and many considered it humiliating to become service troops after having been originally trained to

<sup>2</sup> The Army General Classification Test is divided into five grades:

Grade I—Very rapid learners.

Grade II—Rapid learners. This group includes men who are suitable as officers and non-commissioned officers.

Grade III—Average learners.

Grade IV—Slow learners.

Grade V—Very slow learners. This group includes those who are so mentally limited that they cannot be expected to perform even simple assigned duties or to exercise the necessary precautions for their own safety.

be combat soldiers. There were few men in the company who were capable of assuming responsibility. Within 16 months all but one of those who came overseas as non-commissioned officers had been reduced in rank. Nearly everyone in the company had an opportunity at one time or another to serve as a non-commissioned officer. Many declined and few who accepted were able to discharge their duties satisfactorily.

After a few weeks of preparation at Finschaven, New Guinea, the company participated in the invasion of Hollandia on D-day, April 24, 1944. They were near a disastrous munition dump explosion set off by a Japanese bomb but suffered no casualties. Thereafter they were subjected to a few intensive bombings but engaged in no combat. A month after landing in Hollandia they took part in the initial assault on Biak where they functioned as the principal petroleum supply unit for the island. Again they were in moderate jeopardy from bombing and shelling but sustained no casualties.

As the fighting subsided the living conditions of the group were gradually improved and by December they were established in a clean area in tents and eating a reasonably good garrison ration. Movies and facilities for sports, as well as other customary special service entertainment, were provided. The officers' quarters were similar to those of the enlisted men. Most of the men worked either 8 or 12 hours at a stretch loading and unloading oil drums. Of the group only 10 men, who were granted furloughs to Australia, left the tropics during the first 16 months overseas. There was a moderate amount of drinking and horseplay among the men. Only six were tried by court-martial; their offenses were drunkenness, disrespect to superiors and absence without leave. The men constantly complained of being overworked although their commanding officer and the base officers who handled the assignments did not support their contention.

Approximately 10% of the men reported to the daily sick call. Most of them complained of headaches, pain in the back, weakness, lassitude and giddy spells. From October 1944 through July 1945, 121 were admitted to hospitals on Biak, 62 of these to

the 9th General Hospital; and of the 25 with psychoses, 25 with minor psychiatric illnesses and 71<sup>3</sup> with medical and surgical conditions, 21, 18 and 24 respectively, were studied in the 9th General Hospital. In addition to the cases hospitalized, 5 men were treated in the neuropsychiatric out-patient department of the 9th General Hospital. In general symptoms began after about a year overseas and hospitalizations occurred after approximately 18 months.

#### SIGNAL HEAVY CONSTRUCTION COMPANY

This Negro organization was activated September 1, 1943, at Camp Crowder, Missouri. About half the number of enlisted men were from the south and the rest from Philadelphia and New York. Except for a cadre of 6 men trained by the Signal Corps, all enlisted personnel were assigned from Tank Destroyer units. Only 5 of the men of the company were rated above Grade V in the Army General Classification Test. After 8 weeks of basic training and 3 weeks of technical indoctrination at a Signal Corps school they were sent overseas March 21, 1944. Orders for overseas service were said by the men to have been issued earlier than planned because the unit was involved in a race riot. This supposedly arose from a disparaging remark attributed to a colonel who was serving as a member of the court in a court-martial involving an accusation of rape.

The unit arrived in Hollandia in May 1944. Sanitary conditions were poor. A staff sergeant was reduced to the grade of private for insubordination when he remonstrated with the commanding officer and blamed the 40 cases of dysentery which they had had on the inadequate sanitary measures. This sergeant happened to have the highest Army General Classification Test score in the unit (Grade II) and the non-commissioned officers held him generally in high regard. They felt that he had been unjustly treated and for that reason they all resigned their ratings in protest. The commanding officer accepted all the resignations except

<sup>3</sup> This number does not include a group of 23 admitted on one day because of food poisoning.

that of the first sergeant and appointed new non-commissioned officers.

The organization came to Biak June 2, 1944, six days after the initial landings. They met no enemy opposition except for repeated bombing. The signal officer of the division to which they were attached used the company only for laboring work, cutting down trees in the jungle for telephone poles, digging holes in the hard coral and planting the poles. All the technical work of wiring was assigned to a white Signal Construction Company. This gave rise to widespread resentment among the men, both because of what they considered the indignity of laboring for white soldiers of a parallel unit and because the work was more arduous and hazardous than that of stringing the wire.

During the fighting on Biak 2 men of the company were killed and 8 were wounded. Throughout that period and up to December 1944 there were no neuropsychiatric casualties.

From June to August 1944, 5 men were brought before courts-martial, one for defecating on the road, two for leaving their places of duty and two for insubordination. All of the men were fined but in each case instead of entering the fine on the soldier's service record the commanding officer pocketed the money. Eventually this officer was punished and relieved of command. Another officer of the company was twice reprimanded for breach of censorship regulations. Once he wrote that all Negro troops were stupid and on another occasion he copied a soldier's letter he was censoring and sent it to his own wife. These occurrences became known and enhanced the general resentment of the soldiers. The officer who offended against the censorship rules became the object of special bitterness.

In February 1945 the division to which the company had been attached left Biak and the company was taken over by the Base Headquarters. The Base signal officer assigned these men to their regular technical work of wiring and as a result they were much more content. The company was moved to a new and more comfortable area and provided with the usual athletic and special service facilities.

At about the time this change occurred,

white WACs arrived at the Base and a white signal company whose camp site adjoined that of the Negro unit entertained the women regularly in their enlisted men's club. The music and noise of their parties could be heard in the tents of the Negroes at night. On the beaches the Negro men frequently encountered white soldiers in the company of WACs. Sexual tension among the Negroes mounted sharply and while many had had increasingly frequent sexual fantasies since coming overseas, they now found themselves able to think of little else. They were less and less inclined to work. The commanding officer stated that "for a three man job they liked to have eight men, and then one or two men worked while the rest talked to them." The soldiers, on the other hand, felt that they were overworked and complained that their accomplishments were not being adequately appreciated. Liquor was consumed in increasing quantities. Of three men tried by courts-martial between October 1944 and July 1945, two were arraigned on charges of selling homemade spirits. The other had been disrespectful to a non-commissioned officer.

From October 1944 to July 1945, a total of 88 men from this organization were hospitalized on Biak, 54 of these in the 9th General Hospital; and of the 18 with psychoses, 17 with minor psychiatric illnesses and 53 with medical and surgical conditions, 18, 10, and 26 respectively, were studied in the 9th General Hospital. Eighteen were treated in the neuropsychiatric out-patient department and 17 in the medical and surgical out-patient departments of the 9th General Hospital. Ten men with psychoses and 5 suffering from minor psychiatric illness were admitted during the months of June and July 1945.

#### HISTORY OF THE WHITE ENGINEERING AVIATION BATTALION

This organization had approximately the same length of overseas service and exposure to combat conditions as the three Negro units described. In September 1944 a study of its personnel was undertaken by the 9th General Hospital at the request of the Base Headquarters because the unit's command-

ing officer and medical officer felt that the soldiers were "going to pieces" from prolonged overseas service. The organization consisted of some 744 enlisted men and 33 officers who had received their initial training at Geiger Field, Washington, during the latter part of 1942 and the early part of 1943. The battalion went overseas in April 1943 and arrived in Sydney, Australia, May 21, 1943. It was sent successively to Brisbane, Townsville and finally to Oro Bay, New Guinea, on August 5, 1943.

In Oro Bay there were frequent enemy bombings and one man was killed. The unit built two airstrips during its stay of six months. In the early part of January 1944 the organization left Oro Bay and went to Saidor, arriving on D-day plus six. At Saidor these men defended one mile of beach in addition to their usual construction duties. They built one airstrip, constructed roads and operated a saw mill. Although the strip was bombed repeatedly while the men were at work upon it, there were no casualties. After 5 months at Saidor the group was transferred to Biak, arriving on June 8, 1944, 12 days after the initial landing. One company worked on an airstrip while it was still in the process of being cleared of Japanese troops. The men were subject to machine-gun fire almost constantly. Another company constructed buildings and similar installations and another operated a saw mill in an area infested with Japanese snipers and booby traps.

It is notable that these soldiers endured the same isolation from women as the negro troops discussed. At the time the study of their organization took place, no female enlisted personnel had been sent to the bases where they were stationed. Likewise, the same frustration of seeing others enjoying the company of women existed, since nurses were available as companions for officers. Throughout this period of sustained service in a combat zone, no furloughs had been granted in the organization. The men complained that they were worn out and morale was considered to be generally poor. The battalion had lost 15 men because of neuropsychiatric illness, an average of 4 per company. These illnesses were mainly

severe anxiety reactions which occurred during the periods of most hazardous service.

In the hospital survey, each man was given a physical examination and a brief psychiatric interview. No significant physical defects were discovered. Of the total of 744 men, 145 displayed evidences of mild psychoneurosis, 60 of moderate and 2 of severe reactions. A recommendation was made by the hospital that the entire unit be given a rest. Instead, a dozen furloughs were granted and the organization remained at the base until March 1945.

From September 1944 until March 1945, 62 men from this organization were hospitalized on Biak, 31 of these in the 9th General Hospital. None of these had psychoses. Of the 23 with minor psychiatric illnesses and 39 with medical and surgical conditions, 10 and 21, respectively, were studied in the 9th General Hospital. Of the 69 individuals seen in the out-patient department of the 9th General Hospital only 2 were sent to the neuropsychiatric clinic.

#### COMPARISON OF NEGRO AND WHITE TROOPS

During the period of observation (9 months) of the three Negro organizations their numerical strength showed the following variations: Quartermaster Service Company No. 1: 167 to 192 (average 183) men; Quartermaster Service Company No. 2: 176 to 213 (average 190) men; Signal Heavy Construction Company: 101 to 200 (average 168) men. The average combined strength of the three Negro organizations was 541. The white engineering organization which showed little variation in census from month to month had an average strength of 740 men during a seven month period of observation.

Fig. 1 illustrates a comparison of the relative incidence of medical, surgical and neuropsychiatric admissions to all hospitals on Biak from the one white and three Negro service organizations studied. The incidence of medical and surgical conditions as well as neuropsychiatric disorders was much higher among the Negro organizations than in the white unit. For the number of out-patients examined from these units in all hospitals figures were not available. At the 9th General Hospital, however, of the total white

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out-patients seen 2.3% were patients of the neuropsychiatric clinic, whereas among the Negroes 43.5% were neuropsychiatric cases.

In addition to the detailed study of the four organizations described, a comparison was made of the relative incidence of neuropsychiatric illness in the total number of white and Negro service troops on Biak. During the period of observation there were

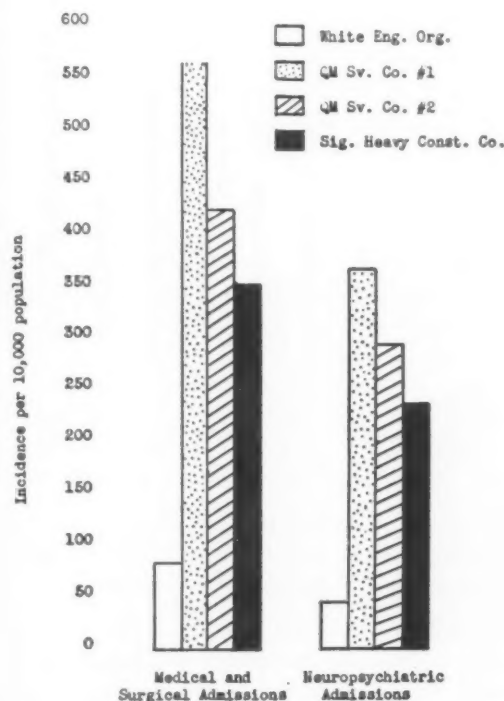


FIG. 1.—Comparison of average incidence of medical and surgical and neuropsychiatric admissions to all hospitals at Biak per 10,000 population per month for one white organization and three Negro organizations.

approximately 2.6 times as many white as colored troops stationed at Biak. Fig. 2 shows a comparison of the incidence of psychoses among white and Negro troops treated at all of the Biak hospitals from November 1944 to July 1945. Fig. 3 compares the incidence of minor psychiatric illnesses among white and Negro troops treated as in-patients. Fig. 4 shows the occurrence of all psychiatric disorders among white and Negro troops admitted to all hospitals.

Six hundred and forty-eight neuropsychiatric patients were admitted during this

period to all hospitals. The incidence among Negroes was 3.1 times greater than among the white troops. Of those suffering from minor psychiatric illnesses 233 were white and 215 were Negroes. The incidence was 2.4

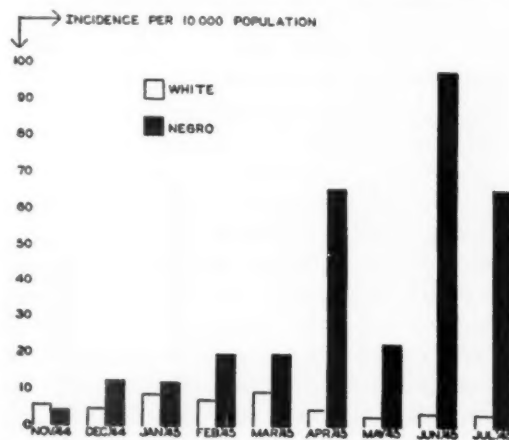


FIG. 2.—Comparison of incidence of psychosis among white and Negro troops treated at all hospitals at Biak from November 1944 to July 1945.

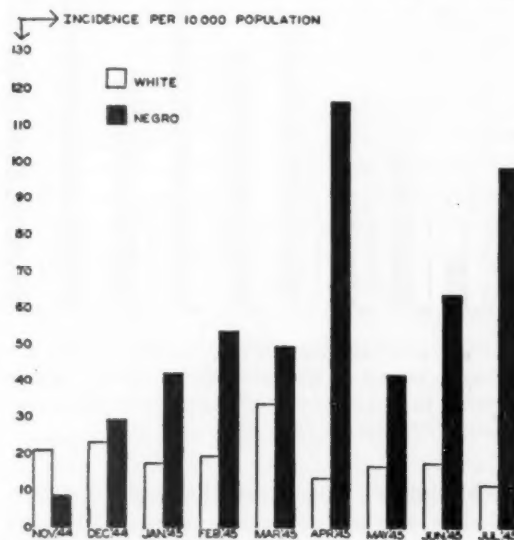


FIG. 3.—Comparison of incidence of minor psychiatric illnesses among white and Negro troops treated as in-patients at all hospitals at Biak from November 1944 to July 1945.

times greater among Negroes. Sixty-eight white men and 132 Negroes had psychoses. On Biak, then, psychosis was found to occur 4.9 times as often among Negroes as among white men. Others also have found a greater incidence of mental illness among Negroes

than among the white population. Wagner (1) reported the incidence in the following diagnostic categories, per 100,000 population in Cincinnati during one year:

	White	Negro
Neuroses .....	3.8	5.2
Manic-depressive psychoses ..	4.7	8.7
Schizophrenia .....	16.2	26.3
Undiagnosed psychoses .....	6.2	17.5

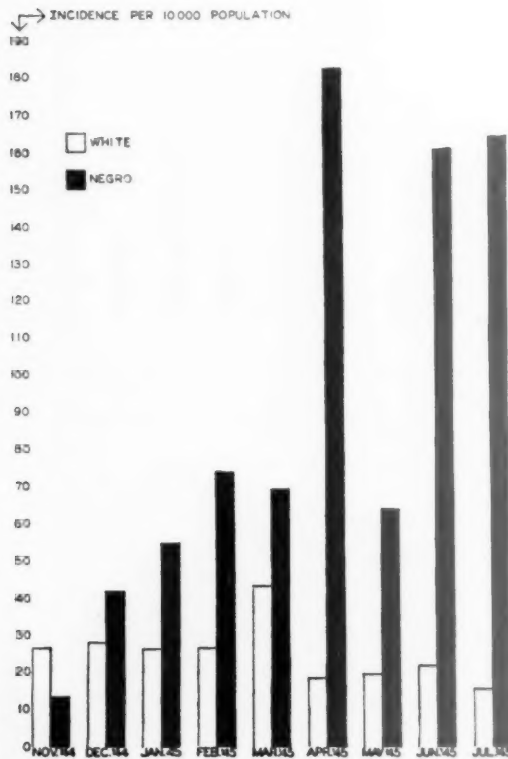


FIG. 4.—Comparison of incidence of all psychiatric disorders among white and Negro troops treated as in-patients at all hospitals at Biak from November 1944 to July 1945.

O'Malley(2) has found that dementia præcox is the preponderant mental disease entity among Negroes. Malzberg(3) noted that the Negro population of the State of New York had an annual rate of first admissions to all institutions for mental disease of 150.6 per 100,000 Negro population. This exceeded the comparative rate among the white population in the ratio of 2 to 1. The rate for dementia præcox was 44.4 and 19.2 per 100,000 for Negroes and whites, respectively.

The policy of the 9th General Hospital

was to treat patients with minor psychiatric disorders in the out-patient department (Fig. 5). There was a significant increase in neuropsychiatric illness among Negro troops as

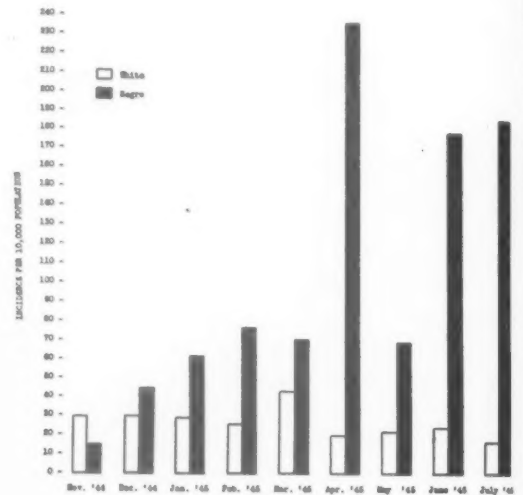


FIG. 5.—Comparison of incidence of minor psychiatric disorders among white and Negro troops treated as out-patients at the 9th General Hospital at Biak.

the time overseas became longer. In comparison, there was relatively little change in the incidence among white troops.

#### GENERAL PATTERNS OF REACTION

From the three Negro organizations studied, 59 cases of psychosis and 45 cases of minor psychiatric disorders were admitted to the 9th General Hospital. These admissions were classified as follows:

Diagnosis	No.
Psychosis, schizophrenia .....	46
Psychosis, manic-depressive .....	5
Psychosis with mental deficiency.....	7
Psychosis with psychopathic personality.....	1
Psychoneurosis .....	33
Psychopathic personality (asocial and amoral type) .....	4
Psychopathic personality (homosexuality)...	2
Alcoholism .....	2
Simple adult maladjustment.....	3
Mental deficiency .....	1

From the above classification one is impressed by the large number of patients with schizophrenia. This diagnosis was always adopted with caution; clear cut evidence of

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disorganization of behavior, with hallucinations and bizarre trends being required before it was made. Investigators have found the negroid personality hard to evaluate, the distinction between psychologic and psychopathologic relationships to be frequently obscure and the differentiation of the various psychoses difficult of accurate clinical appraisal (2, 4, 5, 6). In doubtful cases the patients were labelled with milder diagnoses. As a result, in many instances, later definite evidences of psychosis necessitated a change in diagnostic classification. For example, 3 cases who initially displayed amnesia were at first considered hysterical. In two of these patients definite evidences of catatonic schizophrenia developed. In other instances where complaints of bodily pain were prominent, the symptom was at first cautiously considered to be part of a malingering, hysterical or hypochondriacal reaction but later proved to constitute a somatic delusion. A few patients in whom psychoses were suspected were sent to a trial of duty. Nearly all of these were shortly returned to the hospital showing more severe symptoms of psychosis than before, usually auditory and visual hallucinations involving members of their family or sweethearts. Even in patients with minor psychiatric disorders grossly illogical thinking was commonly observed when intellectual resources seemed normal. The Negroes in the group observed appeared to be especially prone to develop disorganization of thinking and hallucinatory experiences. Evarts (7) has suggested that the apparent ease with which the mentally ill of the Negro race develop hallucinatory experiences and ideas of reference may be related to the fact that they are but a few generations removed from a culture in which such mental "abnormalities" are incorporated in the actual beliefs and practices of their every day lives. In individuals studied at the 9th General Hospital psychotic manifestations appeared to be relatively superficial and easily acquired but in most cases they failed to disappear during a two or three week period of observation in the hospital.

The finding of mental deficiency (mental age below 9 years, as tested by Herring revision of the Binet-Simon test) was noted in

approximately half of the Negro patients seen on the neuropsychiatric wards. It was as common among neurotic patients as among psychotic ones.

#### DISCUSSION OF DYNAMIC FACTORS

Among the possible causal factors to be evaluated in the emotional and mental reactions of these troops were:

1. *The Selection of Men at Induction Centers.*—The frequent discovery of mental deficiency and evidence of severe personality disorder, which existed prior to induction, suggested that the standards for selection had been lower for Negro than for white soldiers. Poor selection, thus, may have been a large factor in causing the preponderance of mental illness among Negroes. Evidence which indicates the correctness of this inference is found in the reports of the director of Selective Service in which it is stated that prior to May 14, 1941, there had been inducted 2,663 whites and 3,711 Negroes who could not read or write, although Negroes constituted only 10.6% of the total registrants as of September 30, 1941 (8). In a later report (9) it was stated that after May 15, 1941, when the fourth grade achievement test in reading and writing was adopted, the rejection rate among Negroes was five times that for whites. Accordingly, in August 1942, induction stations were authorized to accept for induction educationally deficient registrants not to exceed 10% of the white and 10% of the Negro registrants inducted on any given day. In regard to the application of this ruling, the report comments, "This relaxation of the educational deficiency regulation has been very liberal at some induction stations." In view of the above mentioned rejection rates for whites and Negroes, the necessity for meeting draft quotas may have led to induction of a larger percentage of Negroes than of whites who could not meet the requirements.

In a table of the Selective Service report of 1943-44 (10) which indicates the percent distribution of principal causes for rejection at local boards and induction stations from April 1942 through March 1943, it is shown that 14.2% of whites and only 5.8% of Negroes were rejected on psychiatric

grounds. Since the incidence of mental illness has been found to be greater among the Negro than among the white population (1, 3), it seems likely that different criteria may have been used for the rejection of Negroes and whites.

2. *The Home and Educational Background.*—It is well known that the environmental situation of Negroes is in general poorer than that of the white population. Negroes often have been forced to live in tenements in the cities and in shanties in rural areas. Their lack of economic resources and opportunities is conducive to a feeling of insecurity. In many sections of the country educational opportunities have been inadequate. In World War II, when standards of a fourth grade education or equivalent were set up, a large percentage of Negroes was being rejected for failure to meet this standard. Selective Service officials state that the majority of these men were from areas "where educational opportunities just were not available to them" (8). A study of rejections of Selective Service registrants by race on account of educational and mental deficiencies was made (11). In every instance a positive correlation was found between educational facilities offered and rate of rejection.

3. *The Emotional and Intellectual Resources.*—Although individual differences make generalization hazardous, the Negro and white groups appeared to be distinguishable by certain observable emotional and intellectual characteristics. Whether determined by constitution or by early life experiences, they, nonetheless, appeared to differentiate the Negro group from the white group as a whole. Johnson (12) was able to distinguish characteristic Negro personality and cultural traits from a collection of writings of both Negro and white authors, which appeared to represent a fair consensus of opinion. Pintner (13) suggests that a comparison of results of ordinary intelligence tests among Negroes and whites may not be valid and may require special weighting of early environmental factors.

Prudhomme (14) concluded that Negroes are more labile in mood and more easily frightened than white men. Among the pa-

tients of the present study, there was some evidence to support this conception. Near panic reactions were more common among Negroes than whites at the time of the bombing of Biak in March 1945, although no Negro unit was in the vicinity of the bombs dropped. In many instances it appeared that this surprise bombing served as a precipitating factor in the development of psychoses. Most of the men had been conditioned by exposure to previous bombings. Such a reaction is illustrated by the following case which also shows the effect of poor selection and the difficulties of adjustment in individuals with meager intellectual resources.

The patient was a 28-year-old private, first class, who had become panicky during the initial assault on Biak in June 1944. He had run away from his area and had been found on the road in a confused condition. He was hospitalized and evacuated to a non-combat area but was returned to his organization two months later. Thereafter he occasionally noted vertical headaches with giddiness and evidences of confusion. In March 1945 after the surprise bombing of Biak, he was admitted to the 9th General Hospital in a state of acute panic. From this he recovered quickly and was again returned to duty. He continued to have some tachycardia and tremulousness, became increasingly preoccupied with his sexual desires and felt that he was losing his mind. He was finally readmitted to the Hospital in July 1945, complaining of a sticking pain beneath his heart, going through to his back. He was convinced that he had acquired a serious cardiac disease. He also persistently heard his name called when no one was around. A review of his past history showed that he had had difficulty getting along at school and had left in the fifth grade at the age of 15, not having learned to read or write. He had wet the bed until the age of 13 and had had recurrent pains in the abdomen and back for many years. In civil life he had worked as a farmer, was active sexually and attended every church service. In the army he considered himself mistreated and stated that non-commissioned officers had "worked me too hard" and commissioned officers were "too hard to please." The diagnosis was psychosis with mental deficiency based on confusion, hallucinations and bodily delusions.

Lind (15) found that the dreams of the Negro are simpler than those of the Caucasian and that the psychological activities of the former are analogous to those of a child. Among the Negro troops of the present study there was noted a lack of expressions of feeling and an inconsistency of reaction. A game called "The Dozens" was popular among them. To play, one soldier put an-

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other in the "dozens" by making obscene and abusive remarks about the latter's mother, sister or occasionally his wife. The soldier thus insulted countered by trying to surpass the other in fantastic opprobrium applied usually to his mother. It was noted that while such vilification of one another was accepted in good part by these Negro soldiers, even slight profanity used by a white officer in conversation with them was invariably considered offensive.

Officers in charge of Negro troops frequently commented on the difficulty in assuming responsibility experienced by their men. The Negro often expressed a stronger need to be watched over and cared for than did the white, seemed to have more trouble in adapting to many difficult situations, and to be less capable of sustained mental and physical work.

It is a common but probably mistaken idea that it is usual for normal Negroes to hear voices or to see visions. However, certain psychological differences between the Negro and white man that bear on this question, have been described. O'Malley(2) found that Negroes are superstitious, changeable in impulse and emotion, lacking in grasp of abstract ideas and tend to transform the visionary into reality in such a way that the transition between real, supernatural and hallucinatory experiences is difficult to establish in many cases. Lewis and Hubbard(5) found that the American Negro, in contrast to more highly civilized races, shows a comparative lack of self-consciousness, draws a fainter line of demarcation between will and destiny, illusion and knowledge, and dreams and facts, and makes less distinction between hallucinations and objective existence.

It was impossible to determine how much heredity, environment or unsuitable selection of troops influenced the finding of low intelligence. Many of the men had such limited intellectual resources that it was difficult for them to cope with responsibility and compete on an equal basis with white troops in similarly placed units. Moore(6) believed that many Negroes are perhaps rated mentally deficient when the deficiency is in the content of their environment; that rough treatment, ignorance and unsound teaching are re-

sponsible for their mental simplicity and lack of sophistication.

4. *The Emotional Needs.*—Compared to white men, the emotional needs of the Negro appeared to be fewer, but prominent among them was the sexual drive. The lack of sexual gratification was perhaps the most frequently expressed source of conflict. In civilian life sexual expression had assumed in many a place of primary importance as a means of satisfaction and security. Thus, sexual desire appeared to be stronger in the Negro than in the white man. Some sociologists have felt that in peoples native to tropical areas sexual drive is greater and that more premium is put on sexual potency than among people in temperate areas where industry, inventiveness and ability to combat the elements are necessary to survival and are recognized as qualities that receive the greatest social approval. Perhaps through centuries of selection the Negro has developed greater libido as an inborn trait, and, therefore, sexual deprivation may be particularly difficult for him. Possibly his libido has assumed anthropologic importance because of its symbolism of maleness and supremacy, its competitive value and the social premium placed upon sexual potency. During the long overseas periods of isolation from Negro women, mounting sexual tension and preoccupation became extremely troublesome. The following case is illustrative.

The patient was a 22-year-old private who in May 1944 had become tense, tremulous, and subject to nightmares when his unit invaded Biak. These symptoms subsided and were not troublesome until the bombing of Biak in March 1945 when he again developed anxiety. In June his girl stopped writing to him and he became increasingly seclusive, irritable, sleepless, preoccupied with bodily change and subject to nightmares. He thought constantly about women, resented the white outfits having WACs, thought that Negro WACs should be brought overseas and felt that everyone was against the Negro. He often could hear someone coming after him and talking about him when no one was around. In civilian life he had been active sexually but had had no interest in marriage. He occasionally had smoked marijuana. When inducted in May 1943 he resented coming into the army and felt that Negro troops got "the short end of the stick." The diagnosis was schizophrenia, based on confusion, auditory hallucinations, fixed bodily ideas, paranoid trends, loss of intellectual assets and defective insight.

Homosexuality was common. The Negro troops seemed to have less sexual inhibition and to resort more easily to sexual perversion. During the period when there were white women on the island homosexuality increased in incidence. Confirmed homosexuals usually made the sexual advances.

In many patients mistaken ideas about sex gave rise to anxiety. Some felt that frequent sexual intercourse was necessary in order to maintain mental health. In many instances frequent masturbation was a source of both gratification and conflict. Transvestitism was rare. However, in one organization parties were held on Saturday nights, in which many men appeared dressed as women and at which homosexual practices were common.

5. *The Home Problems.*—Problems at home frequently had deleterious effects on the morale and emotional adjustments of the men. Among the most troublesome factors were economic difficulties, illnesses or deaths of relatives and infidelity or suspected unfaithfulness of wives or sweethearts.

6. *The Problems and Attitudes of a Minority Race.*—The social discrimination practiced against their race was often deplored by these patients. Many felt that they had very little to fight for. There was a paranoid coloring to their thinking which had some basis in reality. The phrase "all men are created equal" frequently was interpreted to mean that all men are equal in endowment and should have equal reward, whether earned or not. White officers had to be particularly attentive to these men to avoid being reported to higher authorities for discrimination. One patient who previously had felt greatly discriminated against in his home town and who had been frightened by the lynchings in his section of the south, had run away from home during adolescence and settled in the north only to find there, too, discrimination existed. The writer of the diary quoted above expressed resentment against the Army and against social discrimination.

Take D-days. Everybody is buddies and everybody talk to you. If you don't have a fox hole in a raid maybe a white fellow call you to come get in his hole. That lasts like that during combat until the island start getting secure. Then it all change. A colored fellow can't get a lift in a jeep and six

steps further on they pick up a couple of white fellows. Also colored man can't use the white man's latrine at the base. They gotta dig their own. How that make a fellow feel? Another thin, there is always a colored checker at the gate of the quarter-master dump. The day the General come to inspect the Captain told our Sergeant to remove his checker so he could be replaced by a white soldier. Our Sergeant don't know what to do. He cry like a baby.

7. *The Type of Officers in Charge of the Men.*—Many of the officers in charge of our patients were not suited to lead Negro troops because of temperament or deficiencies in experience and training. In some instances less capable officers had been assigned to Negro units. Some of these men considered Negro troops the "cross" they had to "bear." The frequent dissatisfaction of the white officers associated with Negro troops had an adverse effect on morale. In organizations which had both Negro and white officers there was often much tension and friction, exerting an unwholesome influence on the enlisted men.

8. *The Attitudes of Various Oriented Officers Toward Illness.*—Illnesses among Negro troops in the Pacific theatre were regarded in general with skepticism by line officers and battalion surgeons. Patients with poorly defined somatic complaints were commonly considered to be malingerers or "gold bricks" and were treated with casual indulgence, scorn or reprimand. This unsympathetic care gave rise to feelings of frustration and strong resentment. Often because of concomitant evidence of psychopathic personality and especially alcoholism, symptoms of psychosis were ignored.

9. *The Character of the Work Assigned.*—The type of work assigned caused considerable hostility. Although in general Negroes had not been subjected to the hardships of prolonged periods on the front lines, they were frequently assigned to especially hard, dull, laboring details.

10. *The Closeness of Association with Other Men.*—The men lived in circumscribed cleared areas in the jungle and were crowded together in small tents. There was no opportunity for diversion away from their camps so that escape from interpersonal antagonisms was almost impossible. Close association with other Negroes of a crude type

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was upsetting to the more sensitive members of the group. Some of the men were very obscene and profane and threatened and actually resorted to violence.

11. *Certain Peculiar Problems Incident to Their Overseas Situation.*—As the length of time overseas became more prolonged the reaction of these men to their isolation became pronounced. In May 1945 the abolition of the rotation plan whereby men would be eligible for return to the United States after 18 months of overseas service, had an adverse effect on their morale. This was because under the point system that was substituted for the old plan many men became ineligible for return to the United States. Accordingly many applied for special leaves to the United States for rest and rehabilitation. When all of these requests were turned down, hope of escape from what they considered an intolerable situation on Biak disappeared. The incidence of neuropsychiatric diseases then mounted further.

The question has been raised as to the ability of Negroes to meet the stresses of a civilization developed by the white man, including the rigors of army life. The whole problem of his adjustment is too complicated to warrant any dogmatic statement. Careful study is needed in order to determine the capabilities and limitations of the Negro in the Army. The roots of his difficulty in adjusting emotionally often seemed to lie in his problems as a member of a minority racial group trying to compete with white men in a society prejudiced against him. The development of paranoid trends and taking refuge in fanciful thinking might be expected in such a setting. Furthermore, thoughtful Negroes, in view of their experiences at home, were not impressed by our national propaganda which justified our fighting on the basis of protecting the rights of men, preserving democracy and promoting individual freedom and equality. Personality variations are so great that caution must be used in applying generalities to the individual. The conclusions drawn should not be applied to Negro troops as a whole unless other evidence has been obtained which might indicate that the small numbers considered in this study are characteristic of the Negro as a racial group.

## SUMMARY AND CONCLUSIONS

Data were obtained on the incidence of mental illnesses in Negro troops stationed on an isolated island in the Southwest Pacific and comparisons made with similarly situated white troops.

1. The incidence of psychoneuroses and psychoses was found to be appreciably higher among Negro than among white troops.

2. The Negro appeared less well equipped by virtue of emotional and intellectual resources to adjust to war zone conditions of bodily hazard and isolation from women.

3. The rigors of military discipline, long working hours, and necessarily meager facilities for entertainment in the war zone acted to enhance already existent feelings of maltreatment and racial discrimination among Negroes.

4. Screening out by the induction centers of those unfit for military service because of mental and emotional defects seemed to have been less painstakingly performed among Negroes than among white men and this may have been a factor in the high incidence of psychiatric illness.

5. In many instances the officers were unsuitable to lead Negro troops.

## BIBLIOGRAPHY

1. Wagner, P. S. A comparative study of Negro and white admissions to the psychiatric pavilion of the Cincinnati General Hospital. *Am. J. Psychiat.*, 95: 167-183, 1938.
2. O'Malley, M. Psychoses in the colored race. *Am. J. Insan.*, 71: 309-337, 1914.
3. Malzberg, B. Mental disease among Negroes in New York State. *Human Biology*, 7: 471-513, 1935.
4. Green, E. M. Psychoses among Negroes: A comparative study. *J. Nerv. and Ment. Dis.*, 41: 697-708, 1914.
5. Lewis, Nolan D. C., and Hubbard, L. D. Manic depressive reactions in Negroes. *Manic Depressive Psychoses*. Williams & Wilkins, Baltimore, 1931. Chapter 38, pp. 779-816.
6. Moore, George S. Introduction to a study of neuropsychiatric problems among Negroes. *U. S. Veterans Bureau Medical Bulletin*, 3: 887-897, 1927.
7. Evarts, A. B. The ontogenetic against the phylogenetic elements in the psychoses of the colored race. *Psychonanal. Rev.*, 3: 272-287, 1916.
8. Selective Service in Peacetime. Government Printing Office, Washington, D. C., 1942.
9. Selective Service in Wartime. Government Printing Office, Washington, D. C., 1943.

10. Selective Service as the Tide of War Turns. Government Printing Office, Washington, D. C., 1945.
11. The black and white of rejections for military service. American Teachers Association, Montgomery, Ala., August 1944.
12. Klineberg, Otto. Characteristics of the American Negro. Harper Bros., 1944. Part I: Johnson, Guy B.: The stereotype of the American Negro.
13. Pintner, R. Intelligence differences between American Negroes and whites. *J. Negro Education*, 3: 513-518, July 1934.
14. Prudhomme, Charles. The problem of suicide in the American Negro. *Psychoanal. Rev.*, 25: 187-204, 372-391, 1938.
15. Lind, J. E. The dream as a simple wish-fulfillment in the Negro. *Psychoanal. Rev.*, 1: 295-300, 1914.

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## REVIEW OF PSYCHIATRIC PROGRESS 1946

## HEREDITY AND EUGENICS

FRANZ J. KALLMANN, M.D., NEW YORK 32, N. Y.

Steady progress in appraising the effect of genetic phenomena in relation to mental disorders was apparent throughout the neuropsychiatric literature of the past year. In a long uphill struggle for scientific equality in debating the relative potencies of nature and nurture in the development of "endogenous" psychoses, medical genetics finally appeared to have reached the stage where, in the opinion of Hoskins(1) and other writers, the nurture school found itself charged with the "burden of proof" for conventional generalizations. The changing trend was noticeable not only in the post-war curricula and standard books of psychiatric post-graduate instruction, but also in recently published textbooks of abnormal psychology such as that of Landis and Bolles(2).

Much of the credit of deflating current versions of anti-Mendelian theories implying "inheritance of acquired characters" was earned by Dobzhansky(3) and Dunn(4). In critical digests and the former's literal translation of the latest book of the self-styled Russian fundamentalist and Academician, T. D. Lysenko, they showed the fallacies of the work that had been interpreted in the sense of the inheritability of direct environmental influences. They concurred in a categorical denial that Lysenko's widely popularized ideas were supported by adequate experimental evidence or represented more than a crude restatement of the writings of nineteenth-century biologists.

In striking at another "sociogenetic" anachronism of contemporary psychiatry, Kallmann and Mickey(5) advocated a redefinition of the old concept of induced insanity or *folie à deux*. They favored restriction of the term to the transference of circumscribed delusions in closely associated persons not related by blood, that is, in marriage partners and intimate friends living together. Their contention was that loose application of the term to the occurrence of any psychotic syndrome in consanguineous family units disregarded elemental statistics of chance

distribution and merely obscured the meaning of average expectancy figures obtained in representative samples of twin pairs and other sibship groups.

Of the twin studies published last year, the reviewer's final analysis of an unselected series of 794 twin index families(6) provided definite evidence in favor of the genetic theory of schizophrenia. The concordance rates for 174 monozygotic and 517 dizygotic twin pairs showed a statistically significant difference which approximated the ratio of 1:6. The difference increased to a ratio of 1:55 when the two twin groups were compared with respect to the course and outcome of the disease. Therefore, the ability to respond to certain stimuli with a schizophrenic type of reaction (specific predisposition) was assumed to depend on the presence of a single-recessive factor which must be inherited from both parents. Constitutional ability to resist the progression of a schizophrenic psychosis was classified as a non-specific, graded character controlled by a multifactorial genetic mechanism.

Other twin studies of psychiatric interest included the reports of Riecker(7) on peptic ulcer, of Werne and Garrov(8) on fatal anaphylactic shock, and Pacheco e Silva and associates(9) on the "unitary" nature of spinocerebellar degeneration. Strandkov and Diederich(10) studied the appearance of the Rh blood factor in twins, and Kallmann and Anastasio(11) reported that concordance as to suicide does not seem to occur either in monozygotic or in dizygotic twin pairs, even if the histories of the twin partners are very similar in regard to environmental background factors and psychotic manifestations.

Riecker's emphasis on the psychosomatic connections between genetically determined personality patterns and such localized internal diseases as peptic ulcer and coronary thrombosis was underlined by Dock(12), who attributed the much higher death rate of coronary disease in males to apparently

inherited sex differences in cholesterol metabolism and in the thickness of the coronary intima. Similar genetic relationships were assumed by Krauss(13) in regard to post-choreic personality deviations, and by Landis and Cushman(14) in regard to the tendency to compulsive drinking. Genetically more specific was the discussion of the type of inheritance in Friedreich's ataxia by Lipson and DeNardi(15) who observed three cases in a father and his two sons, and by Beers and Cheever(16) who studied a family with eighteen affected males and two affected females in six generations. The present state of information regarding the hereditary forms of mental defect and epilepsy was reviewed by Halperin(17) and Kallmann and Sander(18), respectively.

General problems of human inheritance were taken up by Myers(19) in a comparative study of instincts and by Huntington(20) in a widely discussed book "Main-springs of Civilization." In interpreting civilization as "the unfinished product of some great evolutionary force which permeates all nature," Huntington stressed the interdependence of its three main directive principles, namely, biological inheritance, physical environment and cultural endowment. His search for biological phenomena as potential causes of different cultural developments led him to both an unconventional emphasis on the factors of selective migration, lethal selections and selective marriage and to the interesting suggestion to replace the amorphous concept of race with the anthropologically less objectionable concept of "kith," that is, a group of people who are "relatively homogeneous in language and culture and freely intermarry with one another." The main significance of kith formation was claimed by the author to rest upon the tendency to maintain continuity in distinctive characteristics over successive generations despite a certain heterogeneousness in anatomical traits, and upon its direct relationship to different reproductive trends in technically advanced, competitive societies.

The eugenic aims of a positive, democratic population policy were reformulated in a stirring bulletin of the British Eugenics Society(21). The contrast between the liberal and the authoritarian application of eugenic principles was shown to be in the

use made of the expert. In a liberal system of eugenics which concedes freedom of choice and independence of action to the individual, the function of the expert was postulated to be advisory and devoid of discriminative powers, although widely advertised and really accessible to everyone. The main standards of positive eugenic value were proposed to be (a) sound physical and mental health and good physique, (b) intelligence, (c) social usefulness, (d) absence of dysgenic family defects, and (e) philo-progenitiveness (love of offspring). In outlining the characteristics of a favorable environment, the emphasis was placed on (a) the removal of social and economic deterrents from parenthood, (b) the inculcation of a eugenic conscience, (c) universal accessibility of knowledge as to how pregnancies can be regulated, and (d) the establishment of facilities by which every engaged or married couple can obtain the most up-to-date scientific guidance on genetic problems. Authoritative information about birth control and voluntary sterilization was suggested to be in accordance with the family's religious beliefs. The decided advantages of such a democratic program of eugenic population policies were brought out clearly by Bigelow(22).

The dysgenic rôle, ascribed to phenylketonuria, Rh blood incompatibility and other foetal antigenic influences through the causation of mental deficiency, was widely recognized by research workers and editorial writers. In order to diminish such disastrous effects of marriages between mixed Rh blood types as were described by Sonn and Wiener(23) as well as by Snyder and associates(24), the proposal was made in the *New York State Journal of Medicine*(25) to include a mandatory determination of the Rh factor either in the premarital serological test or, at least, in the prenatal examination of every pregnant woman. The advisability of this plan was underlined by Penrose's theory(26) that the genetically determined group of foetal growth anomalies due to antigenic incompatibility of mother and foetus may extend to mongolism and zygodactyly. Another interesting finding of Penrose(27) indicated that phenylketonuria may be linked genetically to the blood agglutinogens A, B and O.

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the prevention of phenylketonuria was seen by Penrose(28) in discouraging consanguineous matings in affected families and in a systematic attempt to reduce the matings of two carriers. Eugenic significance was also attached to Penrose's genealogical data on 144 cases of anencephaly, spina bifida and congenital hydrocephaly, re-emphasizing the rôle played by advancing maternal age in this group of malformations(29); to McGregor's report on a family showing association of mental deficiency with nystagmus, myopia and congenital eye defects(30); and to Harris' observation of microspermia in a family distinguished by low fertility and the tendency to produce predominantly male progeny(31).

Statistical information regarding the use of selective sterilization as a prophylactic measure for the prevention of mental defect was supplied by Scott Johnson(32) for the State of New Hampshire, by Butler(33) for California, and by Gamble(34) and Olden(35) for all the 27 American States which still have eugenic legislation (exclusive of the State of Washington where the sterilization law was declared unconstitutional in 1942). From 1919 to 1943, the sterilization program of California was applied to 4,310 mental defectives according to Butler, and to a total of 16,332 abnormal persons according to Gamble. Both writers agreed that the program had been a social and financial success.

The total number of officially reported sterilizations up to January 1, 1946, amounted to 45,127 cases. In relation to the total population, Delaware appeared to have made the most extensive use of selective sterilization with 238 operations per 100,000 inhabitants, followed by California, Virginia, Kansas and Oregon. In 1943, Utah had the most active sterilization program (12.1 per 100,000), with Virginia, North Dakota, Delaware,

Nebraska and California following. A total of 1,336 sterilizations were performed in 22 states during 1945.

#### BIBLIOGRAPHY

1. The biology of schizophrenia. W. W. Norton & Co., New York, 1946.
2. Textbook of abnormal psychology. The Macmillan Co., New York, 1946.
3. T. D. Lysenko. Heredity and its variability (translated from the Russian), King's Crown Press, New York, 1946. Also J. Hered., 37:5-9.
4. Science, 103:180-181.
5. J. Nerv. Ment. Dis., 104:303-315. Also J. Hered., 37:(in press).
6. Am. J. Psychiat., 103:(in press).
7. Ann. Int. Med., 24:878-882.
8. J. A. M. A., 131:730-735.
9. Am. J. Psychiat., 102:828.
10. Human Biol., 77:195-206.
11. J. Nerv. Ment. Dis., 105:(in press). Also J. Hered., 37:171-180.
12. J. A. M. A., 131:875-878.
13. J. Ment. Sci., 92:75-95.
14. Quart. J. Stud. Alcohol, 6:141-182.
15. Dis. Nerv. System, 7:261-267.
16. J. Hered., 36:335-344.
17. Am. J. Ment. Def., 50:8-26.
18. 1946 Sympos. on Epilepsy. Am. Psychop. Ass. (in press).
19. Brit. J. Psychol., 36:1-9.
20. Mainsprings of Civilization. Wiley, New York, 1945. Also Eugen. News, 30:17-19 and 30:42-44.
21. Eugen. Review, 37:92-104. Also Eugen. News, 30:33-42.
22. Eugen. News, 30:53-59.
23. J. Hered., 36:301-304.
24. Ibid., 36:334.
25. N. Y. State J. Med., 46:54.
26. J. Hered., 37:285-287.
27. Am. J. Ment. Def., 50:4-7.
28. Lancet, 2:949. Also J. A. M. A., 132:149 and Brit. M. J., 8:188-189, 1946.
29. Ann. Eugen., 13:141-145.
30. Ibid., 13:135-140.
31. Ibid., 13:156-159.
32. Amer. J. Ment. Defic., 50:437-445.
33. Ibid., 49:508-513.
34. Am. J. Psychiat., 102:289-292.
35. Eugen. News, 31:3-14.

#### NEUROPATHOLOGY, BIOCHEMISTRY AND ENDOCRINOLOGY

ORTHELLO LANGWORTHY, M. D., AND JOHN C. WHITEHORN, M. D., BALTIMORE, MD.

Many articles this year seek to evaluate shock therapies, prefrontal lobotomy and continuous sleep treatment. A vast amount of clinical material has been collected, stimu-

lating further interest both in the clinical and the theoretical issues involved. An excellent book by Kalinowsky and Hoch(1) provides a concise and comprehensive pre-

sentation, incorporating the ideas of the various psychiatric schools of thought in a critical evaluation. Extensive consideration is given to the practical aspects of administering insulin and electric shock. The authors conclude that shock treatment is an unspecific form of therapy and that much research is still needed.

Several reports illuminate, obliquely at least, the problem of multiple sclerosis and other demyelinating diseases, suggesting the role of vascular disturbance as an etiologic factor. Roizin, Helfand and Moore(2) believe that disseminated, transitional and diffuse demyelination belong, from a histopathologic point of view, to the same group of primary demyelinating processes. Cordes(3) observed an unusual type of foveo-macular retinitis found primarily in the navy personnel that served in the South Pacific combat zone. The lesion was limited primarily to the fovea and started with a macular edema and loss of foveal reflex. In the later stages the picture was that of a hole or cyst in the fovea surrounded by a gray area of 0.5 to 1 disc diameter in size. Of the many etiologic causes considered, only two were thought to deserve serious attention, namely solar retinitis and angiospastic retinopathy. The former was rather conclusively ruled out, according to the author. Because of this suggestion of angiospasm, the paper seems pertinent to the present discussion. Scheinker(4) pointed out that a great number of pathologists teach that in the absence of organic disease of blood vessels in the central nervous system, such as arteriosclerosis or syphilis, the alterations in nerve tissue must be interpreted as "primary degenerative" or "toxic." Only recently has attention been called to the importance of functional or reversible circulatory disturbances described as "vasoparalysis" and "vasothrombosis." A change in caliber of a blood vessel may be as detrimental to brain tissue as a mechanical obstruction caused by arteriosclerosis. Morrison(5) exposed dogs and monkeys daily to atmospheres of low oxygen concentration. With repeated exposures to mild hypoxia, it was observed that the first histologic changes occurred in the cell bodies of the cortical gray matter. When the oxygen was reduced to 10 volumes percent the white matter became involved and pre-

sented a pattern of demyelination with a resemblance to Schilder's disease. Carter(6) treated 20 cases of multiple sclerosis by the use of histamine intravenously; 17 failed to show any improvement.

Engel, Ferris, and Romano(7) demonstrated abnormal electrical activity from one occipital cortex in 3 instances of spontaneous scintillating scotoma with homonymous visual field defect occurring during attacks of clinical migraine. Irregular, slow waves were recorded from the contralateral occipital cortex while regular normal activity was recorded from the ipsilateral occipital cortex. With disappearance of scotoma the electroencephalographic abnormalities also disappeared.

Feldberg and Mann(8) confirmed the observation that homogenized brain tissue synthesizes acetylcholine anaerobically in the presence of adenosinetriphosphate and choline. Feldberg(9) has shown that acetylcholine is synthesized by slices of brain tissue. Dried and powdered brain substances when suspended in physostigmine-saline solution also synthesized acetylcholine. The process was accelerated by the presence of ether and depressed by oxygen lack. Glucose accelerated synthesis in fresh brain slices. Calcium ions inhibited synthesis while potassium chloride increased synthesis.

Bruch and McCune(10) examined the effect of adequate treatment with thyroid hormone as judged by physical progress on the mental development of congenitally hypothyroid children. Although there is a distinct relationship between early, adequate treatment and subsequent physical development, a comparable relationship is absent, or at least highly imperfect, with respect to mental development. The intellectual inferiority is due in part to a defect in cerebral development.

Taubenhaus and Engle(11) studied a man, age 23 years, suffering from idiopathic hypoparathyroidism and epilepsy. Therapy of the tetany led to a complete cessation of the epileptic seizures, despite a discontinuation of phenobarbital. They suggested that the low level of serum calcium acted as a trigger agent for the epileptic reaction.

Schweitzer(12) found that adrenalectomy did not lead to adynamia of directly stimulated skeletal muscle as long as the arterial

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blood pressure was within normal limits. Forster *et al.* (13) reported convulsions which developed in a young boy with Addison's disease who was treated for two years with desoxycorticosterone acetate. Autopsy revealed degenerative changes in the cerebral blood vessels. Ungar (14) found that the pituitary-adrenal reaction to stress was inhibited by splenectomy. It was also observed that spleen extracts contain an active substance which can reproduce the reaction to the original stimulus.

Rand and Courville (15) made a detailed study of nerve cell damage after fatal injuries to the brain. The occurrence of definite and widespread chromatolytic changes in the nerve cells, which may persist for some time before reversible change takes place, furnishes a possible basis for the persistent psychic residual disturbances which so often follow craniocerebral injuries.

Horvitz and Uiberall (16) reported neuropsychiatric changes in 64 cases of manganese poisoning among workers in manganese mines in Chile. The prodromal symptoms were headache, weakness, pain in the muscles, sialorrhea and somnolence. The characteristic mental symptom was a manic syndrome. Forty-one showed neurologic changes usually related to involvement of the extrapyramidal system. Richter (17) produced symptoms of intoxication in 4 monkeys poisoned with carbon disulfide by exposing them to inhalation of the vapor. There was extensive, bilateral and symmetrical necrosis of the globus pallidus and the zona reticulata of the substantia nigra. The monkeys presented profound motor disturbances resembling the parkinsonian syndrome. Newell and Lidz (18) reported 28 cases of toxic psychosis following the therapeutic administration of atabrine. Seven other patients developed generalized convulsions.

Granit and Skoglund (19) showed that nerve impulses transmitted over efferent fibers in a mixed nerve are relayed to afferent fibers in the same nerve at a region of injury caused by crushing or cutting the nerve. The cut end of the nerve behaves like an artificial synapse. Martin (20) feels that Hughlings Jackson's theory of the "discharging lesion" is capable of a wider application in clinical neurology than has hitherto been

accorded to it. Phenomena of abnormal discharge are not necessarily transient.

Daly (21) stated that disseminated lupus erythematosus is a systemic disease which may produce diffuse damage to the central nervous system. Clinical manifestations include toxic delirium, frank psychosis, coma and convulsions. Neurologic examinations show scattered findings which shift rapidly on successive examinations. The pathologic picture is one of diffuse nonspecific encephalitis with extensive vascular changes and thrombosis.

Ripley (22) made neuropsychiatric observations on 51 patients with tsutsugamushi fever. All patients exhibited involvement of the central nervous system, manifestations ranging widely from transient toxic cerebral symptoms to evidence of severe, widespread inflammation resulting in coma and death. Pathologic changes in the central nervous system were similar to those found in other organs of the body.

Freeman (23) made pathologic studies of the cerebral motor cortex in 4 cases of amyotonia congenita. The precentral gyrus was characterized by almost complete absence of the large multipolar cells of Betz. This may prove to be an important point in differentiating this disease pathologically from infantile spinal muscular atrophy. Bowden and Gutman (24) found that biopsy of muscle with study of the pattern of innervation affords valuable aid to diagnosis in unusual cases of muscular atrophy and weakness. Billig and his co-workers (25) found that they could improve the power of muscles with residual paresis caused by poliomyelitis by the application of procedures calculated to cause axon branching of the motor fibers which have escaped destruction in order to innervate with the extra branches muscle fibers which lost their nerve supply. Bodian (26) found multinucleated neurons in the nervous system of an adolescent rhesus monkey which had been killed during the acute stage of poliomyelitis. Milhorat (27) reported 2 cases of progressive muscular atrophy with onset several years after an attack of acute epidemic encephalitis.

Gaskill and Korb (28) found that cutaneous diphtheria is frequently complicated by multiple neuritis. There is no relationship between the site of the cutaneous lesions

and the development of the symptoms. A Guillain-Barré type of albuminocytologic dissociation is a concomitant of this form of multiple neuritis. Perkins and Laufer(29) studied 21 cases of postdiphtheritic polyneuritis and found that it exhibits a characteristic clinical picture which differs from that seen in other neuritides.

Rudy and Epstein(30) reviewed 100 cases of diabetic neuropathy. They concluded that this is a generalized neurologic disturbance and is observed not only in the acute stage of diabetes but also soon after the control of the glycosuria and hyperglycemia and in the chronic and even mild cases of the disease. Symptoms and signs of vitamin B-complex deficiency are frequently associated with it. The vitamin deficiency is secondary and appears to be caused by the disturbed metabolism or an associated chronic infection. Avery(31) stated that porphyria should be suspected in all cases of severe ascending polyneuropathy and in all cases of stupor and coma of unexplained origin. Dunning(32) found that the prognosis was satisfactory without operation in 54 percent of the cases of sciatic neuritis caused, in the majority of instances, by herniation of the nucleus pulposus in the fourth or fifth lumbar intervertebral disk.

Kravitz and Stockfish(33) state that Wernicke's disease was thought by early investigators to be due to alcohol. Later it was shown to be the result of a vitamin deficiency due to failure of absorption of vitamin from the intestines. It is more common in alcoholics because alcohol damages the liver as well as causing a chronic gastroenteritis which interferes with food absorption.

Oller(34) observed paroxysmal autonomic crises in a postencephalitic patient. The attacks consisted of the sudden appearance of extreme tachycardia, tachypnea, hyperthermia and diaphoresis, associated with emotional manifestation resembling "sham" rage and with pronounced muscular hypertonic phenomena. Davis and Bick(35) considered skin lesions of eczema and hyperhidrosis under conditions of wartime stress as part of a physiological manifestation of generalized anxiety. Blair and Keller(36) found that a dog's ability to prevent fall in rectal temperature when it was subjected to ordi-

nary cool environmental temperatures was completely eliminated by a procedure that severed the caudal connection of the entire hypothalamic gray matter. Evidence was encountered which indicated that at this hypothalamic level there are separate neural elements for the shivering and non-shivering thermogenic functions. Morrison and Spiegel(37) studied skin potential in cases of visceral pain. They found that an increase of skin potential of 10 m.v. or more in the dermatomes corresponding to an organ causing pain, supports the assumption of organic disease.

Reider and Player(38) studied 2 cases of hemiatrophy of the body which first made their clinical appearance in adult life. Pneumo-encephalogram revealed an enlargement of the opposite cerebral ventricle. Leavitt(39) examined a 21 year old man who manifested what appeared to be a congenital motor anomaly affecting the fingers of both hands whereby skilled motor acts performed with one hand were reflected by involuntary analogous activity of the other.

Fleischhacker(40) stated that under hypoglycemia, schizophrenics show reflex changes which usually appear on the left side first or are stronger on this side. Also slight motor signs are present on the left side in a considerable number of patients suffering from mental symptoms associated with arteriosclerosis, senility or mental deficiency. Post-mortem examinations showed that the right hemisphere is more often or more extensively damaged than the left. There apparently have been suggestions that disturbances of the right hemisphere of the brain would give rise to mental symptoms more often than processes damaging the other hemisphere.

Bell and Karnosh(41) pointed out that co-existing disturbances in skin sensation occur in approximately 76 percent of all hemiplegics and in most instances consist of blunting of all qualities of sensation. The flaccid forms of hemiplegia demonstrate sensory disturbances over the paralyzed areas at least twice as frequently as those which are of spastic type. The most pronounced hypotonia in hemiplegia is found in those patients in whom there is also detected homonymous hemianopia of the same side. The triad of hemiplegia, hemianesthesia and

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hemianopia is attributed to a lesion of the anterior choroidal artery which also interrupts the tone regulating sensory-motor arcs of the basal ganglia, thereby producing a flaccid state in the paralyzed arm and leg. Kabat and Jones(42) treated patients with spastic paralysis with neostigmine. They found that this drug decreases the spasticity, relieving muscle pain and decreasing deformity. Schlesinger(43) reported that a suspension of curare in a mixture of peanut oil and white wax afforded good relaxation of muscle spasm up to 3 days' duration in a group of patients with injury of the spinal cord.

## BIBLIOGRAPHY

1. Kalinowsky, L. B., and Hoch, P. H. Shock treatment, Grune and Stratton, New York, 1946.
2. Roizin, L., Helfand, M., and Moore, J. J. *Nerv. and Ment. Dis.*, **104**:1-50, 1946.
3. Cordes, F. C. *Am. J. Ophth.*, **27**:803-816, 1944.
4. Scheinker, I. M. *Arch. Neurol. and Psychiat.*, **55**:216-231, 1946.
5. Morrison, L. R. *Arch. Neurol. and Psychiat.*, **55**:1-34, 1946.
6. Carter, H. R. *J. Nerv. and Ment. Dis.*, **103**:166-171, 1946.
7. Engel, G. L., Ferris, E. B. Jr., and Romano, J. *Am. J. M. Sc.*, **209**:650-657, 1945.
8. Feldberg, W., and Mann, T. *J. Physiol.*, **104**:8-20, 1945.
9. Feldberg, W. *J. Physiol.*, **103**:367-402, 1945.
10. Bruch, H., and McCune, D. J. *Am. J. Dis. Child.*, **67**:205-224, 1944.
11. Taubenhaus, M., and Engle, H. M. *J. Clin. Endocrinol.*, **5**:147-150, 1945.
12. Schweitzer, A. J. *J. Physiol.*, **104**:21-31, 1945.
13. Forster, F. M., Cantarow, A., Herbut, P. A., Paschkis, K. E., and Rakoff, A. E. *J. Clin. Endocrinol.*, **6**:77-87, 1946.
14. Ungar, G. *Endocrinology*, **37**:329-340, 1945.
15. Rand, C. W., and Courville, C. B. *Arch. Neurol. and Psychiat.*, **55**:79-110, 1946.
16. Horvitz, I., and Uiberall, E. *Rev. Neurol. de Buenos Aires*, **9**:1-31, 1944.
17. Richter, R. *J. Neuropath. and Exper. Neurol.*, **4**:324-353, 1945.
18. Newell, H. W., and Lidz, T. *Am. J. Psychiat.*, **102**:805-818, 1945.
19. Granit, R., and Skoglund, C. R. *J. Physiol.*, **103**:435-448, 1945.
20. Martin, J. P. *Brain*, **58**:167-187, 1945.
21. Daly, D. J. *Nerv. and Ment. Dis.*, **102**:461-465, 1945.
22. Ripley, H. S. *Arch. Neurol. and Psychiat.*, **56**:42-54, 1946.
23. Freeman, W. J. *Neuropath. and Exper. Neurol.*, **5**:207-212, 1946.
24. Bowden, R. E. M., and Gutmann, E. *Arch. Neurol. and Psychiat.*, **56**:1-19, 1946.
25. Billig, H. E., Harreveld, A. van, and Wiersma, C. A. G. *J. Neuropath. and Exper. Neurol.*, **5**:1-23, 1946.
26. Bodian, D. *Bull. Johns Hopkins Hosp.*, **77**:49-59, 1945.
27. Milhorat, A. T. *Arch. Neurol. and Psychiat.*, **55**:134-138, 1946.
28. Gaskill, H. S., and Korb, M. *Arch. Neurol. and Psychiat.*, **55**:559-572, 1946.
29. Perkins, R. F., and Laufer, M. W. *J. Nerv. and Ment. Dis.*, **104**:59-65, 1946.
30. Rudy, A., and Epstein, S. H. *J. Clin. Endocrinol.*, **5**:92-98, 1945.
31. Avery, L. W. *Dis. Nerv. System*, **6**:217-221, 1945.
32. Dunning, H. S. *Arch. Neurol. and Psychiat.*, **55**:575-577, 1946.
33. Kravitz, D., and Stockfish, R. H. *Am. J. Ophth.*, **28**:596-600, 1945.
34. Oller, C. I. *Arch. Neurol. and Psychiat.*, **55**:388-396, 1946.
35. Davis, D. B., and Bick, J. W. *J. Nerv. and Ment. Dis.*, **103**:503-508, 1946.
36. Blair, J. R., and Keller, A. D. *J. Neuropath. and Exper. Neurol.*, **5**:240-256, 1946.
37. Morrison, L. M., and Spiegel, E. A. *Ann. Int. Med.*, **22**:827-831, 1945.
38. Reider, N., and Player, G. S. *J. Nerv. and Ment. Dis.*, **103**:1-8, 1946.
39. Leavitt, H. C. *J. Nerv. and Ment. Dis.*, **103**:514-517, 1946.
40. Fleischhacker, H. H. *J. Nerv. and Ment. Dis.*, **104**:547-563, 1945.
41. Bell, N. E., and Karnosh, L. J. *Dis. Nerv. System*, **6**:307-309, 1945.
42. Kabat, H., and Jones, C. W. *J. Nerv. and Ment. Dis.*, **103**:107-129, 1946.
43. Schlesinger, E. B. *Arch. Neurol. and Psychiat.*, **55**:530-534, 1946.

## ELECTROENCEPHALOGRAPHY

FREDERIC A. GIBBS, M.D., CHICAGO, ILL.

In past years it has been customary to list in this section only those reports which have been published in full. However, this year an exception will be made in order to

draw attention to the work on post-traumatic epilepsy of Earl Walker and his group. This work was reported by Walker at the meeting of The American Psychiatric Association

in May, 1946(1). Post-traumatic epileptics are studied electroencephalographically to determine whether or not they show a seizure focus. If none is present small amounts of metrazol are injected intravenously; experience indicates that in many cases a focus can be made to appear by this means. The decisions to operate and where to operate are based on the electroencephalographic findings. At operation electrodes are placed on the exposed cortex and these are used both for electrical stimulation of the brain and for recording the response after stimulation. No effort is made to produce a convulsion, but only an abnormal discharge. An abnormally discharging area is regarded as a seizure focus and ablated, thus the final decision to excise a particular cortical area is based upon the electroencephalographic findings. Penfield, working with Jasper in Montreal, has used the electroencephalograph as a guide to operation in epilepsy, but he has not stated as complete a reliance on electroencephalography as have Walker and his collaborators.

The second major development of the past year is the demonstration of the almost specific effect of tridione on the 3-per-second wave-and-spike type of petit mal epilepsy(2, 3); it rarely has any effect against grand mal or psychomotor seizures(4, 5). Since the clinical diagnosis of the 3-per-second wave-and-spike type of petit mal is uncertain, the electroencephalograph has thus become an important practical guide to therapy.

The medical-legal implications of electroencephalography have been considered in detail in the past year(6). Two interesting papers have been published by Greenblatt and collaborators. The first of these(7) shows that the EEG is helpful in the differentiation of true syncope from "fainting spells" which have an epileptic basis; the incidence of electroencephalographic abnormality in patients with syncope was found to be no higher than in a control series. Another study(8) was conducted on a group of diabetic patients with a history of frequent insulin reactions or seizures in which hypoglycemia was considered a possible precipitating factor. It was found that as a group these patients had a much higher incidence of electroencephalographic abnormality than patients with uncomplicated diabetes. It is

concluded that diabetic patients with frequent insulin reactions or seizures have, in addition to their diabetes, a defective regulation of the cortical activity. The authors do not consider the possibility that the slow waves and other abnormalities which appear in patients with a history of reactions and seizures are secondary manifestations of repeated exposure to extremely low sugar levels.

Margaret Lennox(9) has provided good experimental proof that sedative drugs in the doses commonly employed in psychotic patients alter the EEG for as much as 12 hours. Sodium amytal produced more electroencephalographic abnormality than phenobarbital or nembutal; chloral and paraldehyde produced the least abnormality.

Baudoin and Fischgold have brought French electroencephalography up to date by a series of articles published in one issue of *La Semaine des Hopitaux*, and in this same issue the report of Ajuriaguerra and Fischgold(10) on electroencephalographic changes in carbon monoxide poisoning constitutes an important original contribution. The authors find that during the acute phase and shortly thereafter the EEG is abnormal, but tends to improve with time; mild cases clear up in a few days and severe cases take longer or may show persistent abnormalities. However, though clinical residuals may remain or increase, the EEG tends to improve with time, and even in the presence of amnesia, disorientation and confusion the EEG may be normal.

Other articles that have appeared during the past year, or to which reference has not been made in earlier reviews are listed in the bibliography in alphabetical order(11).

#### BIBLIOGRAPHY

1. Walker, E., and co-workers. Problems in post-traumatic epilepsy. Presented at the 1946 meeting of The American Psychiatric Association.
2. Lennox, W. G. The petit mal epilepsies: Their treatment with tridione. *J. A. M. A.*, 129:1069, 1945.
3. Perlstein, M. A., and Andelman, M. B. Tridione—its use in convulsive and related disorders. *J. Pediat.*, 29:20-40, 1946.
4. Lennox, W. G. Newer agents in the treatment of epilepsy. *J. Pediat.*, 29:356-362, 1946.
5. Lennox, W. G. Two new drugs in epilepsy therapy. *Am. J. Psychiat.*, 103:159-161, 1946.
6. Gibbs, F. A. Medicolegal aspects of electroencephalography. *Canad. Bar Rev.* 24:359-388, 1946.

7. Levin, D. K., and Greenblatt, M. An electroencephalographic study of cases with syncope and related disorders. *Am. J. Psychiat.*, **102**:301-304, 1945.
8. Greenblatt, M., Murray, J., and Root, H. F. Electroencephalographic studies in diabetes mellitus. *N. England J. Med.*, **234**:119-121, 1946.
9. Lennox, Margaret. Effects of sedative drugs on the electroencephalogram. *Am. J. Psychiat.*, **102**:799-804, 1946.
10. Ajuriaguerra, J., and Fischgold, H. L'E. E. G. dans l'intoxication oxycarbonee (I. O. C.). Semaine des hôp. de Paris, **22**:1242, 1946.
11. Alcade, S. C., and Estrada, P. O. Comparison of radiographic and electroencephalographic findings in organic epilepsy. *Arch. Neurol. y Psiquiat. de Mexico*, **8**:135-149, 1945.
- Barnes, T. C., and Brieger, H. Biological studies of fatigue. II. Students' electroencephalograms taken at 8 a. m. and 5 p. m. *Fed. Proc.*, **5**, 1946.
- Barnes, T. C., and Amoroso, M. D. Physiological factors that determine the effects of hyperventilation on the electroencephalogram. *Anat. Rec.*, **94**, 1946.
- Barnes, T. C., and Amoros, M. D. A method of scoring a patient's electroencephalogram in deep breathing giving a cerebral hyperventilation index. *Fed. Proc.*, **5**, 1946.
- Barnes, T. C. Brain waves of infants and children taken by a new method developed at Hahnemann Medical College and Hospital. *Hahneman. Monthly*, **81**:239-242, 1946.
- Barnes, T. C. Students brain-waves taken before and after classes. *Anat. Rec.*, **94**, 1946.
- Barnes, T. C. Somatic factors in electroencephalography. *Am. J. M. Sc.*, **210**:132-133, 1945.
- Barnes, T. C. Periodic acceleration in frequency of brain-waves correlated with normal respiratory movements. *Anat. Rec.*, **94**, 1946.
- Barnes, T. C., Ruth, H. S., and Hultzman, E. K. Electroencephalography of infants under pentothal anesthesia. *Fed. Proc.*, **5**: 1946.
- Barnes, T. C., and Mauer, I. Bio-electrical studies of fatigue. I. Recovery of fatigued polarized muscle by reversal of the poles of the galvanic current. *Fed. Proc.*, **5**, 1946.
- Barnes, T. C., and Brieger, H. Electroencephalographic studies of mental fatigue. *J. Physiol.*, **22**: 181-192, 1946.
- Baudouin, A. Etat actuel de l'electroencephalographie clinique. Semaine des hôp de Paris, **22**: 1209-1217, 1946.
- Baudouin, A., Fischgold, H., and Remond, A. Diagnostic electroencephalographique de l'épilepsie. Semaine des hôp. de Paris, **22**:1217-1221, 1946.
- Baudouin, A., Fischgold, H., Delarue, R. et Cloche, R. Classification electroencephalographique des epilepsies. Semaine des hôp. de Paris, **22**:1221-1224, 1946.
- Baudouin, A., Peuch, P., Fischgold, H., and Leriche-Koechlin. L'electroencephalographie dans les tumeurs cerebrales. Semaine des hôp. de Paris, **22**:1226-1233, 1946.
- Bertrand, I., Salles, P., Godet, J., and Mazars. Repercussion electro-encephalographique des reactions pleurales. *Comptes rend. soc. de biol.*, **138**: 350-351, 1944.
- Bugnard, L. Analyse des frequences cerebrales. Semaine des hôp. de Paris, **22**:1247-1250, 1946.
- Bugnard, L., Planques, J., F-A Grezes-Rueff et Ch. Grezes-Rueff. Action de la lobeline sur l'electroencephalogramme des epileptiques. Semaine des hôp. de Paris, **22**:1225-1226, 1946.
- Cobb, W. A. Rhythmic slow discharges in the electroencephalogram. *J. Neurol. Neurosurg. and Psychiat.*, **8**:65-78, 1945.
- Cohn, R. The influence of emotion on the human electroencephalogram. *J. Nerv. and Ment. Dis.*, **104**:351-357, 1946.
- Crescitelli, F., and Gilman, A. Electrical manifestations of the cerebellum and cerebral cortex following DDT administration in cats and monkeys. *Am. J. Physiol.*, **147**:127-137, 1946.
- Darrow, C. W. The electroencephalogram in psychophysiological regulation in the brain. *Am. J. Psychiat.*, **102**:791, 1946.
- Dawson, G. D. The relation between the electroencephalogram and muscle action potentials in certain convulsive states. *J. Neurol., Neurosurg. and Psychiat.*, **9**:5-22, 1946.
- DeJong, R. N. Further observations on the use of tridione in the control of psychomotor attacks. *Am. J. Psychiat.*, **103**:162-164, 1946.
- DeJong, R. N. The effect of tridione in the control of psychomotor attacks. *J. A. M. A.*, **130**:565, 1946.
- Delay, Jean, Neveu, P., and Desclaux, P. Harmonious results of pneumoencephalography and of electroencephalography in some psychoses. *Ann. Med. Psychol.*, **102**:370-381, 1944.
- Drohocki, Z. Electrospectrophraphie qualitative et quantitative due cerveau. *Arch. Suisses Neurol. and Psychiat.*, **55**, 1945.
- Fischgold, H., and Bounes, G. Exploration electroencephalographique des etats comateux. Semaine des hôp. de Paris, **22**:1245-1247, 1946.
- Forster, F. M. Action of acetylcholine on motor cortex: Correlation of effects of acetylcholine and epilepsy. *Arch. Neurol. and Psychiat.*, **54**:391, 1945.
- Gellhorn, E., and Ballin, H. M. Water intoxication and electroencephalogram. *Am. J. Physiol.*, **146**:559-566, 1946.
- Hoagland, H., Malamud, W., Kaufman, I. C., and Pincus, G. Changes in the electroencephalogram and in the excretion of 17-ketosteroids accompanying electroshock therapy of agitated depression. *Psychosom. Med.*, **8**:246-251, 1946.
- Hochel, G. Der Wellenindex, eine methode zur zahlenmabigen auswertung des menschlichen electroencephalogramms. *Ztschr. f. d. ges. Neurol. u. Psychiat.*, **174**:281-294, 1942.
- Hugger, H. Zur objectiven auswertung des electroencephalogramms unter besonderer berucksichtigung der gleitenden koordination. *Pfluger's Arch. f. d. ges. Physiol.*, **244**:309-336, 1941.
- Jung, Richard. Das elektroencephalogram und seine klinische anwendung. *Nervenarzt*, **14**:57-117, 1941.
- Jung, R. Physiologische untersuchungen über den parkinson tremor und andere zitterformen beim

menschen. Ztschr. f. d. ges. Neurol. u. Psychiat., 173:263-332, 1941.

Moore, M. T. Paroxysmal abdominal pain, a form of focal symptomatic epilepsy. J. A. M. A., 129:1233-1240, 1945.

Niemeyer, P. Suppression of the motor response and of cortical electric activity in man. Arq. de Neuro-Psiquiat., 4:109-117, 1946.

Robinson, L. J. The electroencephalogram in some military and selective service convulsive and non-convulsive problems. Am. J. Psychiat., 102:305-310, 1945.

Simons, D. J., and Diethelm, O. Electroencephalographic studies of psychopathic personalities. Arch. Neurol. and Psychiat., 55:619-626, 1946.

Swinyard, E. A., Toman, J. E. P., and Goodman, L. S. The effect of cellular hydration on experimental electroshock convulsions. J. Neurophysiol., 9:47-54, 1946.

Ten Cate, J., and Swijgman, D. W. Localisation de l'origine des convulsions produites par le cardiazol et la coramine. Arch. internat. pharmacodyn. de et de therap., 70:293-306, 1945.

Toman, J. E. P., Swinyard, E. A., and Goodman, L. S. Properties of maximal seizures and their alteration by anti-convulsant drugs and other agents. J. Neurophysiol., 9:231-240, 1946.

Turner, W. J., Lowinger, L., and Huddleson, J. H. The correlation of preelectroshock electroencephalogram and therapeutic result in schizophrenia. Am. J. Psychiat., 102:299-300, 1945.

Ubersfeld, A. Les conditions que doit remplir un appareillage d'electroencephalographie clinique. Semaine des hôp. de Paris, 22:1250-1253, 1946.

Verdeaux, G. and J. La societe d'electroencephalographis de grande-bretagne. Semaine des hôp. de Paris, 22:1253-1254, 1946.

Wawrzik, F., and Jung, R. Hans Berger. Nervenarzt, 14:481-484, 1941.

Ziskind, E., Sjaardema, H. and Bercel, N. A. Minimal electroencephalographic response to metrazol as a method for measuring the convulsive threshold for use in human beings. Science, 104:462-463, 1946.

## EPILEPSY

WILLIAM G. LENNOX, M.D., AND JEAN P. DAVIS, M.D., BOSTON, MASS.

Epilepsy in relation to electroencephalography is dealt with in the contribution of Dr. Gibbs. The remainder of the harvest of articles this year is below average in numbers, presumably an aftermath of the war and of the curtailment of the program of the section of convulsive disorders of The American Psychiatric Association. Publication of the 44 articles given before the joint scientific sessions of the Association for Research in Nervous and Mental Diseases and the International League Against Epilepsy on December 13th and 14th of 1946 will make next year's report more fruitful. The reader is also referred to the current number of *Epilepsia*, which abstracts the world's literature on the subject.

During the war, America was denied access to foreign books and articles. Two monographs have been received recently. One is on the etiology, symptomatology and treatment of epilepsy in children by Ledebor(1), a leader of Dutch epileptologists. The other by Moruzzi(2) and printed in Bologna is a detailed review and report of the neurophysiology of convulsions as revealed by electrical and mechanical recordings of nerve currents and of muscle move-

ments in animals. Some 400 articles are referred to. In this country, 1946 produced a new edition of the popular book on epilepsy—"Science and Seizures(3)."

Probably the most substantial contributions have been in the field of therapy. Buchanan(4) gives a commonsense statement of standard treatment in children. Lennox(5, 6) outlines newer aspects of therapy, especially results with the two drugs which are as yet in the experimental stage, methylphenylethyl hydantoin (mesantoin) and trimethyloxazolidine dione (tridion). As regards the former, Kozol(7) has given a more enthusiastic report. Sixty percent of his 106 patients had a 90 percent reduction in seizures. The frequency of rash and of drowsiness limits the usefulness of this drug. However, the absence of ataxia and of hypertrophy of the gums makes it a useful substitute or adjunct of diphenylhydantoin (dilantin) in the treatment of convulsive or psychomotor seizures. It is not effective for petit mal. Other hydantoinates are being scrutinized in experimental laboratories(8).

Trimethyloxazolidine dione, mentioned in the review of last year, has kept its early promises(9). Perlstein and Andelman(10)

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believe it has gone beyond these and helps not only the petit mal triad of seizures but also many patients with grand mal or with the spasticity of cerebral palsy or the spasm of tetanus. DeJong(11, 12) finds that the drug, when combined with phenobarbital or with diphenylhydantoin, is often effective in the control of psychomotor seizures. However, reviewing his experience in 219 cases, Lennox(13) reports almost uniform success in the treatment of petit mal, occasional success with combined dilantin and tridione in psychomotor epilepsy, and almost uniform failure in grand mal. The photophobia caused by the drug has not been explained. Toxic action on the blood forming elements of the bone marrow must be watched for, since depression of the neutrophils(14) and two deaths from aplastic anemia have been reported(15, 16).

Animal studies form a background for the evaluation of drugs which may prove clinically useful. Merritt and Putnam(17) have made public the results of their extensive investigation of the anticonvulsant properties of some 400 chemicals. Seventy-six of these were given a four plus rating. The authors record the effective and the minimal lethal doses and specify twelve compounds that have proved to be toxic. Under grant from the Public Health Service, Toman, Swinyard and Goodman(18) have studied the effects of maximal electro-shock. Convulsions were produced by electro-shock or by metrazol injections. The benefit from anticonvulsant drugs was more clearly demonstrable for these maximal convulsions than for smaller seizure manifestations. The authors rank tridione with phenobarbital in protective value(19) whereas glutamic acid fails to protect in any dose(20). Cellular hydration(21, 22) by electrolyte depletion, and by the oral administration of water reduces the seizure threshold in rats by more than 50 percent, although the pattern of maximal electro-shock convulsions is not altered. Dilantin, phenobarbital and tridione all raise a convulsive threshold which has been lowered by cellular hydration, but do not affect the convulsive threshold of the animal(23). According to Marks and Spiegel(24) intramuscular and intraperitoneal injections of pregnenolone in dogs and cats raise

the threshold for electrically induced convulsions. In some animals an increase in threshold could be observed after a single injection.

In the future much will be written about epilepsy produced by the wounds of battle. The best surgical judgment and technique must be mobilized for these cases. Walker(25) has been aided in the localization of epileptogenic foci by induced subclinical cortical seizure discharges. He used intravenous injection of subconvulsive doses of metrazol, followed, if this proved of localizing value, by direct stimulation of the cortex with a minimal electrical current.

Investigations into the background etiology of epilepsy have been relatively neglected. Statistical and electroencephalographic studies of the influence of heredity have been reported in two contributions from Boston(26, 27). Data deal with 12,119 near relatives of 2,130 epileptics, 50 twin pairs affected by seizures, together with analyses of the electroencephalograms of 470 relatives and of the 50 twins. They suggest that not epilepsy per se, but a tendency or predisposition is inherited, and the electroencephalographic pattern is an hereditary trait; however, practical limitations in recording minor changes in the EEG limit the application of negative results. The incidence of epilepsy is higher among the relatives of the following: female epileptics; those with petit mal or whose seizures antedated any pathology of the brain; those in whom it developed early in life, and in whom mental abnormalities were present at birth. Follow-up studies of 691 children of the epilepsy clinic at the Johns Hopkins Hospital(28) reveal an average recovery rate of 35.7 percent. The rate is 41.5 percent in so-called idiopathic epilepsy as compared with 20.8 percent in organic epilepsy. (Recovery is defined as freedom from seizures for a period of at least two years.) A heavy family history of epilepsy, but not of febrile convulsions, is prognostically unfavorable. In addition to these scientific studies, steady progress is being made in the instruction of doctors(29), and nurses(30) and in the education of the general public by the American Epilepsy League. This lay organization also helps the doctors through assumption of financial responsibility for the magazine *Epilepsia*.

## BIBLIOGRAPHY

1. Ledeboer, B. Ch. *Epilepsieer bij Kinderen*. Paper, 140 p. H. D. Tjeenk Willink & Zoon N. V. Haarlem Holland 1941.
2. Moruzzi, Ginseppe. *L'Epilessia Sperimentale*. Paper, 128 p. Nicola Zanichelli Editore. Bologna, Italy, 1946.
3. Lennox, W. G. *Science and seizures*, 2nd ed. 258 p. Harper and Brothers, New York, 1946.
4. Buchanan, D. *Convulsions in infancy and childhood*. *Med. Clin. N. Am.*, **30**:163, 1946.
5. Lennox, W. G. Newer agents in the treatment of Epilepsy. *J. Pediat.*, **29**:356-62, Sept. 1946.
6. Lennox, W. G. Two new drugs in epilepsy therapy. *Am. J. Psychiat.*, **103**:159-62, Sept. 1946.
7. Kozol, H. L. Methylphenylethyl hydantoin in epilepsy therapy, *Am. J. Psychiat.*, **103**:154-8, Sept. 1946.
8. Swinyard, E. A., and Goodman, L. S. Laboratory assay of anticonvulsant potency of some hydantoinates. *Fed. Proc.*, **5**:2-5, 1946.
9. Goodman, L. S., Toman, J. E. P., and Swinyard, E. A. The anticonvulsant properties of tridione. *Am. J. Med.*, **1**:213-228, Sept. 1946.
10. Perlstein, M. A., and Andelman, M. B. Tridione: Its use in convulsive and related disorders. *J. Pediat.*, **29**:20-40, June 1946.
11. De Jong, R. N. Effect of Tridione in the control of psychomotor attacks. *J. A. M. A.*, **130**:565-7, March 1946.
12. De Jong, R. N. Further observations on the use of Tridione in the control of psychomotor attacks. *Am. J. Psychiat.*, **103**:162-4, Sept. 1946.
13. Lennox, W. G. Tridione in the treatment of epilepsy. *J. A. M. A.*, in press.
14. Greaves, R. J. Sensitivity to Tridione. *J. A. M. A.*, **132**:44, Sept. 1946.
15. Harrison, F. F., Johnson, R. D., and Ayer, D. Fatal aplastic anemia following use of Tridione and a Hydantoin. *J. A. M. A.*, **132**:12-13, Sept. 1946.
16. Mackay, R. P., and Gottstein, W. K. Aplastic anemia and agranulocytosis following Tridione. *J. A. M. A.*, **132**:13-6, Sept. 1946.
17. Merritt, H. H., and Putnam, T. J. Experimental determination of anticonvulsive activity of chemical compounds. *Epilepsia*, **3**:51-74, Dec. 1945.
18. Toman, J. E. P., Swinyard, E. A., and Goodman, L. S. Some properties of maximal electroshock seizures. *Fed. Proc.*, **5**:105, 1946.
19. Toman, J. E. P., Swinyard, E. A., and Goodman, L. S. Properties of maximal seizures and their alteration by anticonvulsant drugs and other agents. *J. Neurophysiol.*, **9**:231-9, May 1946.
20. Goodman, L. S., Swinyard, E. A., and Toman, J. E. P. Effects of Glutamic acid and other agents on experimental seizures. *Arch. Neur. and Psychiat.*, **9**:20-9, 1946.
21. Swinyard, E. A., Toman, J. E. P., and Goodman, L. S. The effect of cellular hydration on experimental electroshock convulsions. *J. Neurophysiol.*, **9**:47-54, Jan. 1946.
22. Swinyard, E. A., Toman, J. E. P., and Goodman, L. S. The effects of body water and electrolyte shifts on experimental convulsions. *Fed. Proc.*, **5**:205, 1946.
23. Goodman, L. S., Swinyard, E. A., and Toman, J. E. P. Studies on the anticonvulsant properties of diphenylhydantoin. *Fed. Proc.*, **5**:180, 1946.
24. Marks, M., and Spiegel, E. A. Anticonvulsant effect of pregnenolone. *Fed. Proc.*, **5**:71, 1946.
25. Walker, A. E. Problems in posttraumatic epilepsy. *Am. J. Psychiat.*, in press.
26. Lennox, W. G. Marriage and children for epileptics. *Human fertility*, **10**:97-106, Dec. 1945.
27. Lennox, W. G. The genetics of epilepsy. *Am. Jour. Psychiat.*, in press.
28. Kajdi, L., Bridge, E. M., and Livingston, S. The importance of heredity in the prognosis of epilepsy in childhood. Read before the section on Convulsive Disorders of the Am. Psychiat. Assoc., Chicago, May 1946.
29. Merritt, H. H. Treatment of epilepsy. *Cincinnati J. Med.*, **27**:279, 1946.
30. Lennox, W. G. The epileptic patient and the nurse. *Am. J. Nursing*, **46**:219-23, April 1946.

## NEUROSYPHILIS

AUGUSTUS S. ROSE, M.D., AND HARRY C. SOLOMON, M.D., BOSTON, MASS.

The literature on neurosyphilis in 1946 was again dominated by the subject of penicillin therapy. Another year not only added more cases to the investigative studies but also, by virtue of the time elapsed, added validity to treatment results. All observers are in agreement as to the effect of penicillin on the spinal fluid abnormalities but a healthy, stimulating difference of opinion apparently exists concerning the need for fever therapy. There were also several papers during the

year, not dealing with penicillin, which deserve comment.

Many of those interested in the historical aspects of fever therapy will recall their disturbed feelings on reading the publication of Zakon and Neymann(1) in 1943, and subsequently, the editorial in the *Journal of the American Medical Association* of April 8, 1944, in which it was stated that priority for the use of malaria and relapsing fever in the treatment of general paralysis should

belong to Rosenblum. Although the importance of Dr. Julius Wagner-Jauregg's work was in no-wise belittled by these publications, it is consoling to the admirers of Wagner-Jauregg to have his version of this subject put into print. "The History of the Malaria Treatment of General Paralysis" by Wagner-Jauregg, translated from the German by Bruetsch(2), recognized Rosenblum but points out that he did not follow up by further investigation his observations that some psychoses recover with fever.

The perplexing problems of pathogenesis and treatment of primary optic atrophy were discussed by Bruetsch(3). From a pathological study of 70 cases of neurosyphilis, 12 of which had optic atrophy, the author concludes that the optic nerves and chiasm are invaded from without and that these structures show evidences of inflammation comparable to that obtained in general paresis—although no spirochetes were found in the tissues. Malaria is recommended in view of the apparent arrest of the pathological process in cases which received that therapy. This paper, although not well documented by case reports and detailed description of pathological material, is stimulating and provocative. Attention should be drawn to the discussions which followed the presentation of the paper before the section on nervous and mental diseases of the American Medical Association. The concepts of pathogenesis of optic atrophy and of tabes as held by a number of persons in the field of syphilology are recorded.

Syphilitic amyotrophy is discussed by Revilla(4) in a clinical study of 7 cases. In these, as in the majority of cases falling into this category, proof that the amyotrophy is of syphilitic origin is conjectural, although one of his cases showed objective improvement after 2 months of antisyphilitic treatment (metal chemo-therapy). It is noteworthy that O'Leary(5) obtained no interruption in the progression of symptoms and signs of 2 patients with syphilitic amyotrophy treated with 12,000,000 and 16,000,000 units of penicillin respectively.

Two interesting and instructive cases of syphilitic arachnoiditis treated by penicillin were reported by Callaway and his co-workers(6). The first case was operated upon and thickened spinal arachnoid was

removed for pathological examination. Symptomatic improvement followed surgery and penicillin therapy, although spinal fluid relapse subsequently necessitated fever therapy and a repeat course of penicillin. The second case showed a neurological picture of upper thoracic spinal cord compression with partial subarachnoid block. Gradual disappearance of neurological signs followed treatment with penicillin. Since surgical exploration was not necessary in the second case, a differential diagnosis between arachnoiditis and pachymeningitis was not established but there is no doubt of the syphilitic etiology in either case.

Following early investigations which demonstrated that penicillin did not enter the spinal fluid in any appreciable amount, interest was stirred into the possibility of intrathecal injection of the drug for the treatment of neurosyphilis. Publications in 1945, however, presented clinical and experimental data to show that large intrathecal doses carried the potential danger of convulsions and possibly of death. Furthermore, sufficient data have accumulated to show that intrathecal penicillin is not necessary for satisfactory results in all types of neurosyphilis. It is, nevertheless, of considerable interest that Weickhardt(7) treated 5 cases of general paresis with intrathecal penicillin alone. Small initial doses were gradually increased to a maximum of 100,000 units. A febrile response followed the initial dose in 4 of the 5 cases, but no other untoward effects occurred. One case died on the 8th treatment day from suffocation by food in the trachea and autopsy showed no pathological change which could be attributed to the intrathecal penicillin. The remaining 4 patients had maintained both clinical and spinal fluid improvement at the end of 1 year following treatment.

Callaway and others(8) reported the results of treatment in their first 100 cases which were followed for 6 to 18 months after 4,000,000 units of penicillin alone. These cases were all considered "active" neurosyphilis and were classified as follows: asymptomatic 37, paresis 39, tabes dorsalis 11, taboparesis 7, meningovascular 6. Ninety-one cases showed "good" or "excellent" results by combined clinical and serological criteria. Only 5 cases showed poor results.

Stated differently, "60% have shown clinical improvement associated with definite improvement in spinal fluid findings, 31% clinical improvement alone, 4% improvement in spinal fluid findings unassociated with clinical change, and 5% have shown decided clinical deterioration with no improvement or progression in their spinal fluid findings."

O'Leary and co-workers(9) reported the treatment with penicillin of 100 patients with different types of neurosyphilis, in various schedules and doses and also in combination with fever therapy. They emphasized that the most outstanding result common to most patients is found in the spinal fluid, which showed a return of cell count, total protein and gold curve to within normal limits and a reduction of strength of the complement fixation test. The outstanding clinical efforts were a gain in weight and a reduction of severity and frequency of pains in the legs. They state further that patients who had meningeal neurosyphilis were most responsive both clinically and serologically, while patients who had parenchymatous forms of the disease were helped only slightly, if at all. O'Leary and Kierland(5) in a review of "Today's Treatment of Syphilis" read in the general scientific meetings at the 95th annual session of the American Medical Association, San Francisco, July 2, 1946, restated the above results and pointed out that "more clinical remissions were obtained in paretic patients who received combined penicillin-fever treatment than when penicillin was given alone. In fact, we have not observed a frank clinical remission in a paretic patient after administration of penicillin alone, although such remissions have been observed by others."

The active and thorough investigations into the effects of penicillin in neurosyphilis at the University of Pennsylvania were reported by Stokes and others(10) whose results with penicillin alone are considered more favorable. Two hundred and eighty-three patients, followed from 120 to 719 days, were studied. They showed a spectacular return of the spinal fluid findings toward normal in a high percentage of cases of all types of the disease. Clinically, symptomatic neurosyphilis showed an overall improvement in 65%. However, they observed a difference in the results of the different

types of the disease for "30% of these with dementia paralytica improved definitely, 31% of the tabetic, 17% of the meningo-vascular patients." But, Stokes believes "Penicillin is outranked by malaria as yet in clinical improvement, probably because of the short observation period of penicillin."

Reynolds, Mohr and Moore(11), reporting results in dementia paralytica from Johns Hopkins, make a comparison between 24 cases treated with penicillin alone and 17 cases treated with penicillin combined with malaria. They conclude that penicillin alone "produced at least some degree of clinical improvement in 11 of 24 patients (46%). Improvement in spinal fluid abnormalities generally was apparent. Penicillin administered concurrently with malarial therapy resulted in clinical improvement in at least 10 of 17 patients (58%). Improvement in spinal fluid abnormalities was even more complete than with penicillin alone."

The results obtained in 100 cases followed 1 year or more at the Boston Psychopathic Hospital(12) were presented before the section on dermatology and syphilology of the American Medical Association in July at San Francisco. All but 19 of these cases received fever therapy in addition to penicillin, the amount of fever being limited to 4 to 6 paroxysms of malaria or 20 hours of fever above 105° F. in the fever cabinet. The course of 3,000,000 units of penicillin was repeated if indicated by clinical and/or serological data. Sixty-two cases were improved, 35 showed no definite clinical change and 5 were worse. Thirty-six of the 100 cases required a second or third course of penicillin. The group studied included 75 cases of dementia paralytica which showed 52 (69%) improved, 21 no change and 2 worse. Those treated with combination of penicillin and malaria showed a somewhat higher percentage of improved cases than those treated with fever cabinet or with penicillin alone.

The results of penicillin treatment of asymptomatic neurosyphilis is tabulated and discussed by Moore and Mohr(13), O'Leary and Kierland(5), Callaway *et al.*(8), and Stokes *et al.*(10). There is a remarkable agreement among these authors that penicillin in doses of 2.4 million units or more exercises a favorable effect on the spinal

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fluid. Moore stresses that these cases require careful follow-up with frequent examinations of the spinal fluid and that retreatment should be instituted with first evidence of relapse. Cases of late asymptomatic neurosyphilis which do not show a good response to, or which relapse after one course of, penicillin may well need fever therapy in addition to retreatment with penicillin.

Callaway *et al.* (8) and Tucker and Robinson (14) raised the question of danger in administration of penicillin in large doses to patients with syphilitic aortitis, and suggest that in such cases penicillin is best given by starting the course with relatively small doses. This is undoubtedly good advice, yet it is very likely that only a rare case will encounter a severe complication due to therapeutic shock.

In summary it may be said that penicillin has proved to be the most effective single therapeutic agent thus far discovered for the treatment of neurosyphilis. It reaches its peak of effectiveness in early asymptomatic and in syphilitic meningitis, but its usefulness in all other forms of the disease is unquestionable. The most effective total dose, the best frequency of administration and the most effective individual dose have yet to be determined. However, the evidence now points to the following as optimum: a total dose of from 4 to 10 million units, a frequency of every 3 hours and individual doses of from 25 to 50 thousand units. Intramuscular injection in saline or aqueous solution appears to be settled as the most satisfactory mode of administration.

A difference of opinion remains as to the requirement of fever therapy in addition to penicillin for the parenchymal forms of neurosyphilis. It is difficult to formulate the reasons for this difference in opinion from the published data. It is possible that those who advocate the combination of fever and penicillin are dealing with the disease in a later, more advanced stage. However, since fever therapy has already withstood the test of time as a treatment method, the therapist

will best serve his individual patient by giving the combination of fever and penicillin until investigators in the field have solved the problem.

#### BIBLIOGRAPHY

1. Zakon, S. J., and Neymann, C. A. Alexander Samoilovich Rosenblum, his contribution to fever therapy. (*Arch. Dermat. and Syph.*, **48**:52, 1943.
2. Wagner-Jauregg, Julius. Comment and Translation by: Bruetsch, Walter L. The history of the malaria treatment of general paralysis. *Am. J. Psychiat.*, **102**:577, March, 1946.
3. Bruetsch, Walter L. Malaria therapy in syphilitic primary optic atrophy. *J. A. M. A.*, **130**:14, Jan. 5, 1946.
4. Revilla, Antonio G. Syphilitic amyotrophy: Clinical study of seven cases. *Dis. Ner. Syst.*, Vol. VII, No. 3, March 1946.
5. O'Leary, Paul A., and Kierland, Robert R. Today's treatment of syphilis, *J. A. M. A.*, **132**:430, Oct. 26, 1946.
6. Callaway, J. Lamar and others. Syphilitic arachnoiditis treated with penicillin. *Am. J. Syph., Gonorr. and Ven. Dis.*, **30**:231, May 1946.
7. Weickhardt, George D. Intrathecal administration of penicillin in general paresis. *Am. J. of Syph., Gonorr. and Ven. Dis.*, **30**:235, May 1946.
8. Callaway, J. Lamar and others. The use of penicillin in the treatment of syphilis of the central Nervous system; a report of 100 patients. (*Am. J. Syph., Gonorr. and Ven. Dis.*, **30**:110, March 1946.
9. O'Leary, Paul A., Brunsting, Louis A., and Ockerly, Orville. Penicillin in the treatment of neurosyphilis, *J. A. M. A.*, **130**:698, March 16, 1946.
10. Stokes, John H., and Steiger, Howard P. Penicillin alone in neurosyphilis. *J. A. M. A.*, **131**:1, May 4, 1946.
11. Reynolds, Frank W., Mohr, Charles F., and Moore, J. Earle. Penicillin in neurosyphilis, II. Dementia paralytica. *J. A. M. A.*, **131**:1255, Aug. 17, 1946.
12. Rose, Augustus S., and Solomon, Harry C. Penicillin in the treatment of neurosyphilis; a study of 100 cases followed 1 year. In press. Read before the Section on Dermatology and Syphilology at the 95th Annual Session of the A. M. A., San Francisco, July 4, 1946.
13. Moore, J. Earle, and Mohr, Charles F. Penicillin in the treatment of neurosyphilis. I. Asymptomatic Neurosyphilis
14. Tucker, Harold A., and Robinson, Raymond C. V. Neurosyphilitic patients treated with penicillin. *J. A. M. A.*, **132**:281, Oct. 5, 1946.

## ALCOHOL. GERIATRICS

KARL M. BOWMAN, M.D., SAN FRANCISCO, CAL.

## ALCOHOL

During the past year there have been further efforts to do something about the problem of alcoholism.

The "Yale Plan" of information centers, has received wide publicity, and appears to be operating successfully. Alcoholics Anonymous show increasing vigor and strength, and are making further constructive efforts to aid in the treatment of alcoholics. The experiment at Knickerbocker Hospital, New York City, in which a ward has been turned over to Alcoholics Anonymous and selected cases sent there for temporary hospital care, has worked out in a reasonably satisfactory manner. There has been much agitation to set up new governmental machinery for dealing with this problem. The "Connecticut Plan" under which 9% of the revenue obtained from the sale of alcoholic beverages, is administered by a commission which is set up to carry on treatment and research into the problem, has gotten away in excellent fashion. It is still too early to know what can be done by such a method. The literature continues to show wide interest, and considerable research on the subject.

Masserman(1) and his colleagues have presented certain evidence based on controlled studies of cats, to indicate that the use of alcohol will afford partial protection against disturbing and upsetting experiences which would otherwise precipitate a neurosis. He feels that alcohol does this by diminishing the acuity of sensory experiences, disorganizing receptual integrative response formations, and impairing the retention of such reaction patterns as are temporarily formed. He feels that a similar reaction will occur in human beings.

An interesting article on alcohol and creative work by Ann Roe(2), studies carefully the life history of some 20 living painters, who are universally recognized for their great achievements. In addition to the regular interviews and the discussion of the use of alcohol by each one of the 20, the Rorschach and Thematic Apperception Tests were given to all of them. The results cannot be easily summarized, but the conclusions are that there is great variation in the alcoholic habits

of the subjects, 5 being moderate drinkers, 9 steady social drinkers and 6 excessive drinkers. No abstainers could be found. "With one exception they have all found that alcohol is not a good stimulus to creative work, and they do not use it consciously for this purpose." The interesting discussion of the whole problem cannot be condensed for this review, and the reader is referred to the original article.

Jellinek(3), by means of an elaborate questionnaire, has studied the drinking habits of some 98 members of Alcoholics Anonymous. The article is of interest in showing a specific questionnaire used for such purposes, and in the attempt to find certain behavior in the development of drinking habits which will be of use in further studies both to determine when persons may be developing dangerous habits and to determine prognosis.

The use of caffeine and sodium benzoate intravenously is recommended by Adler(4) in the treatment of violent or comatose alcoholic patients. It is stated that comatose patients are aroused and excited patients sedated by the general stimulating effects of the drugs on the higher nerve centers.

Lolli(5) discusses the relationship of hang-over to the theory and treatment of alcohol addiction. He states "the hang-over represents a sudden fall from the pleasurable or at least painless non-reality of acute intoxication, into a new reality more threatening than that of the period preceding the bout." He considers alcohol addiction as a psychoneurotic symptom, and feels that during the period of hang-over the patient is particularly susceptible to psychotherapy. Proper psychological handling of hang-over should, therefore, be the entering wedge of psychotherapy. He concludes "attention has been focussed on the hang-over situation because its adequate handling is followed by permanent sobriety in a few cases, and by a definite improvement in the drinking pattern in many other cases."

Riley and Marden(6) by means of a questionnaire sent to every tenth doctor in New Jersey, sought to discover the attitude of the medical profession towards alcoholism. In

general they found that doctors regarded alcoholism as an illness, but that the alcoholic was "an especially difficult person to deal with." About one-half of the doctors were pessimistic as regards any permanent cure from treatment. In general the doctors favored some constructive program, and felt that the state should maintain facilities for alcoholics. They strongly favored public education and attempts to prevent alcoholism by such means.

The summer school of alcoholic studies at Yale University held its fourth annual session during the summer of 1946, with a total of 161 students from all parts of the country. Fifty-six of these students were clergymen; 34 were educators; 30 were welfare workers; 11 were employees of the alcoholic beverage industry; 9 belonged to medical and allied professions, and 7 were professional temperance workers, leaving 14 more classed as miscellaneous. More than 20 of the enrolled students were members of Alcoholics Anonymous.

#### BIBLIOGRAPHY

1. Masserman, Jules H., Jacques, Mary Grier, and Nicholson, Mary R. Alcohol as a preventive neurosis. *Quart. J. Stud. Alcohol.*, 6:281-334, 1945-46.
2. Roe, Anne. Alcohol and creative work. *Quart. J. Stud. Alcohol.*, 6:415-467, 1945-46.
3. Jellinek, E. M. Phases in the drinking history of alcoholics. *Quart. J. Stud. Alcohol.*, 7:1-88, 1946.
4. Adler, F. F. Caffeine with sodium benzoate for acute alcoholism. (correspondence). *J. A. M. A.*, 130:530, 1946.
5. Lolli, Giorgio. The hang-over in relation to the theory and treatment of alcohol addiction. *Quart. J. Stud. Alcohol.*, 7:193-213, 1946.
6. Riley, John W., Marden, Charles F. The medical profession and the problem of alcoholism. *Quart. J. Stud. Alcohol.*, 7:240-270, 1946.

#### GERIATRICS

The most important development in the field of geriatrics is the appearance of two new magazines, indicating the increasing interest in this subject. The first of these is *Geriatrics* the official organ of the American Geriatrics Society. This magazine is a bi-monthly, and states that it is "devoted to research and clinical study of the diseases and processes of the aged and ageing." A number of articles of interest to psychiatrists

are included. For example, in the first issue the late Harold D. Palmer has an article entitled "Mental Disorders of Old Age," which summarizes the important material on the subject. Edwin J. Doty discusses the "Incidence and Treatment of Deliria Reactions in Later Life" emphasizing the frequency of deliria in later life and the importance of avoiding chemical sedation and restraint, which he regards as particularly likely to increase the incidence of undesirable reactions.

The second magazine is the *Journal of Gerontology* which is owned and controlled by the Gerontological Society, Inc. The journal is a quarterly magazine, and in addition publishes a non-technical supplement quarterly which is separately bound and sent to all subscribers. There are many excellent articles. As samples of articles recommended to psychiatrists are such as "Ageing in Nutritionally Deficient Persons" by Tom D. Spies and Harvey S. Collins; "Attitude Towards Ageing and Aged; primitive societies" by Leo. W. Simmons; "Preparation for Retirement" by Leon H. Moore, and many other titles which cannot be given for lack of space. Psychiatrists will find much of value in both of these journals.

The 5th edition (1946) of "The Care of the Aged" by Malford W. Thewlis has appeared, and it is interesting to note that the psychiatric material is included under the chapter headed "Neurology."

Another new book "Creative Old Age" by Clair De Gruchy, describes the principles and procedures employed by the late Dr. Lillian J. Martin, and the work of the San Francisco Old Age Counselling Center. A number of case histories are given indicating methods of treatment.

In the January 1946 issue of the *Journal of Mental Science* are three excellent articles. The first by Aubrey Lewis "Ageing and Senility, a major problem of psychiatry"; the second by Margaret Davies Unsenck, "The Psychological Aspects of Ageing and Senility," and an article by H. Goldschmidt, "Social Aspects of Ageing and Senility."

In spite of the large number of articles and general interest in this subject, there seems to be nothing new or radical that has been brought out during the past year. The

importance of diet has been emphasized by many, and there seems to be rather general agreement that close attention to diet with increase of the vitamin and mineral content is of value. The psychological factors have been emphasized, and there is recurring emphasis on the fact that many conditions attributed to old age are really the result of emotional attitudes which the individual develops as a result of the cultural pattern in this matter. The philosophy generally accepted is that old persons should be encour-

aged to keep up their interests and carry on useful activities even when it might seem that they were taking actual physical risks by so doing.

As has been pointed out time and again, many individuals overweight, with high blood pressure, go on living and enjoying life for years smoking, drinking and over-eating. Other individuals have their own lives made miserable by the fear of high blood pressure, and are unable to do anything constructive or to enjoy life.

### CHILD PSYCHIATRY. MENTAL DEFICIENCY

LEO KANNER, M.D., BALTIMORE, MARYLAND

Two features stand out prominently in the development of child psychiatry during the year 1946:

One of these features, which was already in evidence in the preceding year, has gathered momentum and has become a force to be reckoned with. Many physicians, especially psychiatrists and pediatricians, returning from the armed services, have been profoundly impressed by the influence of early life experiences on the morale and behavior of individual soldiers and sailors. Most of the published analyses of psychiatric war casualties refer to childhood relationships of the patients as potent etiologic factors. This, more than anything else, has begun to do away with the artificially sustained cleavage between adult psychiatry and child psychiatry. More and more of the younger people have come to feel that training in child psychiatry is an indispensable part of a well-rounded psychiatric orientation. Many young pediatricians clamor for opportunities for the kind of instruction which will enable them to deal with the everyday problems of the everyday child. The time has come when more and better training facilities must be provided in order to satisfy this increasing demand.

The second feature is even more stimulating and challenging. The United States has unquestionably become a world training center for child psychiatry. Ever more people are coming to these shores, eager to observe and acquire the attitudes and knowl-

edge and to learn the methods which are more advanced than anywhere else on the globe. Representatives of the Latin American and European countries are sent here for this purpose by their governments or by the foundations, and some come on their own. The few existing training centers are swamped with applications. The creation of more facilities is an imperative need.

*Meetings.*—The Section on Psychopathology of Childhood met on the first day of the May meeting of The American Psychiatric Association. The country-wide railroad strike prevented some contributors from coming to Chicago and presenting their papers. There were discussions of irrelevant and metaphorical language in early infantile autism (Kanner) (1); dilantin treatment for problem children with abnormal electroencephalograms (Walker and Kirkpatrick), and late results noted in children presenting postencephalitic behavior (Lurie). In another section, Jensen emphasized the importance of emotional factors in the dysrhythmic disorders of children. Sherman told of his experimental determinations of the threshold of frustration of normal, neurotic and schizophrenic children by recording facial and gestural responses and simultaneous tracing of the encephalogram and photopolygraph.

*Periodicals.*—*The Nervous Child*, whose untiring editor has recently announced a new publication to be known as the *Journal of Child Psychiatry*, came out with three valu-

able symposia, one on the problem of anxiety and fear disturbances in young children, one on problems of coercion, and one in which varying viewpoints on child psychoanalysis are set forth; a fourth issue of this year will deal with psychosomatic problems of early childhood. These symposia, in which all shades of modern psychiatric thought are represented, not only serve as an open forum but also contain discussions of each topic on a high scientific level.

The *American Journal of Orthopsychiatry* offered a symposium on children's stuttering, with contributions from Despert (physical, social and psychiatric findings) (2), Kopp (Ozeretzky tests) (3), Carlson (response to Binet tests) (4), and Krugman (Rorschach study) (5); the investigation of 50 patients showed the presence of fundamental anxiety not secondary to the speech difficulty; a marked disturbance of the overall motor functioning, and a personality structure more intelligent but less productive and more stilted than that of the average child. Harle (6) contributed a paper on the interpretation and treatment of acute stuttering in a 3½-year-old child. Andriola (7) discussed a "truancy syndrome," characterized by severe rejection on the part of parents or teachers, marital discord of the parents, and feelings of inadequacy and worthlessness. Arlow and Kadis (8) showed how finger painting can be employed successfully in the psychotherapy of children. Allen (9), taking part in a panel on the training of psychiatrists, discussed training in child psychiatry with the wisdom for which he is well known; the reading of his article is highly recommended by this reviewer.

It is gratifying to know that any review of progress in child psychiatry has to look now for publications in pediatric as well as psychiatric journals. The *American Journal of Diseases of Children* had four articles helping pediatricians to orient themselves in the field; two are by Senn (10, 11), who has helped to carry a psychiatric orientation into pediatrics, one is by Bakwin (12), a pediatrician profoundly and actively interested in children's behavior problems, and one is by Alpert (13), who tried to present "criteria for the recognition of neuroses in children." In the *Journal of Pediatrics*, Sportsman (14) discussed the psychiatric implications of

stramonium poisoning; Aldrich and collaborators (15) continued the reports of their study of the crying of newly born babies, which was reduced 51.4% after changes in the nursing and floor routine, the addition, of more nurses, and individualization of the nursing care; Hewitt and Aldrich (16) described how they could remove anorexia in 91% of their followed-up cases by advising the mothers; Gesell (17) outlined practical rules in the care of premature infants; and Crothers and Meyer (18) offered suggestions about the handling of children hospitalized because of poliomyelitis, with the aim of avoiding psychiatric problems by helping the victims to make a good transition from immobilization to activity and from the hospital to home and school.

*Books.*—Toward the end of 1945, two books appeared in which attempts were made to present child psychiatry in the form of collections of representative articles by various authors. Unfortunately, editorial haste apparently did not even allow time for indexing. *Modern Trends in Child Psychiatry*, edited by Lewis and Pacella (19), is a collection of 17 articles (rather than chapters) in which as many experts summarize the topics of their particular interest. It is a somewhat selective Who's Who and Does What in Child Psychiatry. *The Psychoanalytic Study of the Child* (20), edited by the late Fenichel, is somewhat of a miscellany, in which some excellent original contributions are contained (also a few "surveys" and book reviews). Papers by Spitz on hospitalism, by Klein on the reluctance to go to school, and by Malcove on the work of Margaret Fries are especially worthy of note.

*Mental Deficiency.*—With each advancing year, the *American Journal of Mental Deficiency*, under the editorial leadership of Edward J. Humphreys, is assuming more and more the functions of a modern, broadly conceived and progressively oriented *vadé mecum*. A mere arrangement and condensation of the pivotal articles published in the past few years could easily furnish the material for a complete and up-to-date textbook. The three numbers brought out so far in 1946 cover competently topics pertaining to classification, phenomenology, education, the aspects of recreation, music and religion, administrative structures and procedures, in-

service training of employees, adjustment in the community, and critical appraisals of psychometric methods and results.

A few specific contributions may be mentioned: Wiener and Brody(21) suggested that Kernicterus in erythroblastosis fetalis results from the formation of agglutination thrombi in the cerebral vessels, with simultaneous liver damage. Gordon (22) emphasized the conclusion reached previously by Pototzky (whom he did not quote) that many Mongolians attain a higher intellectual level than was formerly assumed. Thorne and Andrews(23) found in a five-year-study of parental attitudes toward their institutionalized children that absence does not always make the heart grow fonder; only 22% of 291 children received occasional or regular visits and gifts from their families. Hackbusch and Klopfer(24) pleaded for a change of "what someone has called the 'snobbish attitude' of clinics, so that children will be considered 'treatable' and capable of being

helped on some other basis than just the I.Q."

#### BIBLIOGRAPHY

1. Am. J. Psychiat., 103:242-245.
2. Am. J. Orthopsych., 16:100-113.
3. Ibid., 16:114-119.
4. Ibid., 16:120-126.
5. Ibid., 16:127-133.
6. Ibid., 16:156-162.
7. Ibid., 16:174-176.
8. Ibid., 16:134-146.
9. Ibid., 16:430-439.
10. Am. J. Dis. Children, 71:537-549.
11. Ibid., 72:95-110.
12. Ibid., 71:113-130.
13. Ibid., 72:274-278.
14. J. Ped., 29:345-349.
15. Ibid., 28:665-670.
16. Ibid., 28:595-596.
17. Ibid., 29:210-212.
18. Ibid., 28:324-326.
19. New York, Intern. Univ. Press. 1945, 341 pp.
20. New York, Intern. Univ. Press. 1945, 423 pp.
21. Am. J. Ment. Def., 51:1-14.
22. Ibid., 51:402-410.
23. Ibid., 51:411-418.
24. Ibid., 51:15-34.

#### PSYCHOMETRICS

F. L. WELLS, PH. D., CAMBRIDGE, MASS.

Various war accessions to psychometric techniques have been alluded to in previous reports. During this year, accounts of them have become increasingly available through the several agencies of their origin. The most convenient source of these references is Psychological Abstracts. A well considered overall review of these developments is given by Hunt(11).

The chief procedural accession is Form II of the Wechsler-Bellevue series(17). This is an outgrowth of applications of the method to military needs. Editorially it marks a distinct advance over the previous form, and what is the usual structure of clinical procedures. Improvement of content is also apparent, but both are difficult of assessment without considerable experience in use. Nor can it be overemphasized that a technically inferior procedure in the hands of one who well understands it, will have greater clinical validity than a superior procedure that is ill understood.

Estes(4) discusses Rapaport's views of

subtest score discrepancies in the Wechsler-Bellevue, with particular reference to shifting of verbal and performance ratings between superior and inferior groups. A critical scrutiny is offered by Luchins(13) of what may be expected to happen when clinical intelligence tests are understood on a technician level, particularly with reference to equating scores with diagnostic categories.

Damrau(3) adds another to the experiences of improved intellectual functioning under conditions that reduce emotional stresses. Bromide or barbiturate sedation was found to improve performance in an intellectual test. (This reviewer has come across a similar practice of taking a mild sedative in preparation for public speaking.)

Hilkevitch(9) contributes to the continuing work on epileptic deterioration, a study of retests. The Stanford-Binet procedure was used in assessing amount of deterioration during institutional life. This was found quite variable, and as a whole not great. Much of it had taken place before institu-

tionalization, and is very difficult to separate from original defect. A frequency of early seizures would be an especially effective factor in deterioration.

The psychometric attack on the inductive reasoning process is continued by Welch and Long(18). A test-series of rather broad scope was given to a group of over a hundred patients averaging about four to a diagnostic category. Differential criteria did not emerge, and would perhaps not be expected in the circumstances, the main interest of the work being from the standpoint of developing techniques, and analysis of the generalizing process.

It has long been apparent that test-series for "memory," involving as they largely did, facility in the establishment of associative cues, would exhibit considerable relationship with tests of "intelligence." Eysenck and Halstead(5) give a rigidly quantitative demonstration of this, with the natural inference that the conventional memory test is of but limited validity as such. Much of the difficulty seems to lie with a loose formulation of the memory concept in present thinking.

A memory-for-designs test as described by Graham and Kendall(7) appears to avoid this objection with some success. As described, it is better at avoiding false positives than accomplishing pickup, and the absence of correlation with "intelligence" will bear further checking; but it typifies the approach to the problem that is needed.

After many years of desuetude, there may be a recrudescence of interest in word-association procedures. Welch, Diethelm and Long(19) report some ingeniously conceived experiments, using nonsense syllables as stimulus words, in which there was considerable difference in associative facility in favor of elated versus non-elated groups. A simulation of this increased facility could be achieved through dexedrine sulfate. Liberson and Prescott(12) report word association and EEG correlation in a group of psychoneuroses; showing relations of less effective association response to abnormal EEG patterns, as well as to less favorable clinical prognosis.

The marked usefulness of the Kent "emergency" questions invites the consideration of alternative procedures. Buck(2) offers a series based on time orientation, that has con-

siderable promise in this respect. The paper gives all data needed for giving and evaluating. While obviously narrower in scope, it is possibly more culture-free than the Kent procedure, and adapted to a wider age-range.

The Goodenough "draw-a-man" test has proved an attractive one in the comparison of cultural types and levels. Havighurst, Gunter and Pratt(8) review the literature concerning American Indians, and offer data of their own. The Indian performance seems to be better than that of whites; the test itself is doubtful for "general" intelligence, but available for a special type of concept formation. It seems as yet to have had little pathological use, but to be capable of effective combination with the Bender Gestalt figures. These it may be noted, have at last become available in a standard form, with specific instructions(1).

Studies of the Hunt-Minnesota test for organic brain damage are reported by Meehl and Jeffery(15), and by Malamud(14). The work of Meehl and Jeffery indicates that the presence of depression is likely to produce many "false positives" for this test. But the procedure may still have considerable value, when used in judicious combinations. Malamud reports findings of a more negative character, with altogether too many of these false positives for a presumably normal group. The possibility is suggested that a change of time standards might at least improve this situation.

The enduring dilemma of psychometric speed and accuracy is given a searching scrutiny by Himmelweit(10). Tasks with special reference to speed or accuracy were compared in their performance by hysterics and dysthymics. Statistically treated, it was felt that general factors for both speed and accuracy could be distinguished. There was in these data no relation between speed and accuracy unless the examinee's mistakes were evident to him, but in the latter case, a negative relationship, at least when the work is manipulative. The hysteric group seemed to run to speed, the dysthymic one, to accuracy.

Insofar as the psychiatrist concerns himself with the rôle of psychometrics in career planning, the recent developments under the leadership of Rogers(16), in non-directive counseling will be of interest. One may look forward to an increased role of motivation

in such guidance, as compared with the role of measurable aptitudes. Rogers' paper repays a careful reading, the conclusion in which it issues being that "Only when (1) the need to take tests is a significant aspect of the client's symptomatic behavior, or (2) it is impossible for the client to be responsible for a choice or (3) research purposes require a measurement of an admittedly changing characteristic, do psychometric tests seem to have a purpose with which the non-directive counselor can agree."

Counseling may be client-centered, but life in organized society is far from it. To the second of the conditions above named by Rogers, belong therefore all selectional procedures, including the broader bearings of military psychometrics as discussed by Bingham(1a). The paper is concerned essentially with the general classification test results. Among the more important observations are those concerned with its value as a predictor over a wide range of occupational skills, but the essential bearing of the paper is social, with reference to the maldistribution of education in relation to fitness.

Another contribution which is important to the psychiatrist interested in fundamental concepts, is made by Garrett(6). The main demonstration is that such broad "ability clusters" as the verbal, numerical and spatial, show a notable decrease of intercorrelation during the early growth-years. Save for these early years, the implications are heavily in favor of fractionated test series of the Bellevue, or Detroit learning aptitude type, though no doubt their subtests could be strengthened; as they are in the Thurstone primary abilities series for example.

#### BIBLIOGRAPHY

1. Bender, L. F. Bender Motor Gestalt Test: Cards and Manual of Instructions. Amer. Orthopsychiatric Association, 1946.
- 1a. Bingham, W. V. Inequalities in adult capacity—from military data. *Science*, 104:147-152, 1946.

2. Buck, J. N. The Time Apperception Test. *J. Applied Psychol.*, 30:388-398, 1946.
3. Damrau, F. Psychometric evaluation of sedatives. *Med. Rec.*, N. Y., 1946, 159: 349-351.
4. Estes, S. G. Deviations of Wechsler-Bellevue subtest scores from vocabulary level in superior adults. *J. Abnorm. Soc. Psychol.*, 41:226-228, 1946.
5. Eysenck, H. J., and Halstead, H. The memory function. I. A factorial study of fifteen clinical tests. *Am. J. Psychiat.*, 102: 174-179, 1945.
6. Garrett, H. E. A developmental theory of intelligence. *Amer. Psychologist*, 1:372-378, 1946.
7. Graham, F. K., and Kendall, B. S. Performance of brain-damaged cases on a memory-for-designs test. *J. Abnorm. Soc. Psychol.*, 41:303-314, 1946.
8. Havighurst, R. J., Gunther, Minna, and Pratt, Inex. Environment and the draw-a-man test: The performance of Indian children. *J. Abnorm. Soc. Psychol.*, 41:50-63, 1946.
9. Hilkevitch, R. R. A study of the intelligence of institutionalized epileptics of the idiopathic type. *Am. J. Orthopsychiat.*, 16:262-270, 1946.
10. Himmelweit, H. T. Speed and accuracy of work as related to temperament. *Brit. J. Psychol.*, 36:132-144, 1946.
11. Hunt, W. A. New evaluative methods and future prospects. *Ment. Hyg.*, 30:21-32, 1946.
12. Liberson, W. T., and Prescott, B. D. Study of word association processes. III. Clinical and EEG correlations in a group of psychoneurotic patients. *Inst. of Living*, No. 14, 20-28, 1946.
13. Luchins, A. S. On certain misuses of the Wechsler-Bellevue scales. *J. Consult. Psychol.*, 10: 109-111, 1946.
14. Malamud, R. F. Validity of the Hunt-Minnesota test for organic brain damage. *J. Applied Psychol.*, 30:271-275, 1946.
15. Meehl, P. E., and Jeffery, M. Hunt-Minnesota test for organic brain damage in cases of functional depression. *J. Applied Psychol.*, 30: 276-287, 1946.
16. Rogers, C. R. Psychometric tests and client-centered counseling. *Educ. Psychol. Measmt.*, 6: 139-144, 1946.
17. Wechsler, D. The Wechsler-Bellevue Intelligence Scale, Form II. Psychological Corporation, New York, 1946.
18. Welch, L., and Long, L. Psychopathological defects in inductive reasoning. *J. Psychol.*, 21:201-225, 1946.
19. Welch, L., Diethelm, O., and Long, L. Measurement of hyper-associative activity during elation. 21:113-126, 1946.

GENERAL CLINICAL PSYCHIATRY, PSYCHOSOMATIC MEDICINE AND  
PSYCHOSURGERY

NOLAN D. C. LEWIS, M.D., NEW YORK, N. Y.

It has been our object in this review to collect a few of the most important contributions appearing through the year, for the purpose of directing attention to those features lending themselves either to practical application in the clinic or to additional investigatory procedures rather than to those of chiefly theoretical interest. No claims can be made to completeness as we have had to be both rigidly selective and brief in presenting the material taken from a considerable wealth of published work. More literature is now coming in from foreign countries, and there is some indication that the free exchange of journals and books that once promoted knowledge will be re-established soon on its original basis, thus stimulating and promoting research throughout the civilized world.

In clinical psychiatry Masserman's(1) book dealing with the principles of dynamic psychiatry marks a milestone in the integration of experimental psychology with the concepts of modern psychiatry. His approach is broadly eclectic as he attempts to bring together the Pavlovian, the Gestalt, and the psychoanalytic procedures to a common ground. He has emphasized a comprehensive point of view of total behavior, based upon biological observation and rooted in biological principles. It is enhanced by a wealth of clinical and experimental data. Behavior is not merely a mechanical response to various stimuli but is also dependent upon a total personality organization.

Seltzer(2) analyzed the body proportions of 258 normal young men. Stature, body weight, shoulder and chest measurements, hips, legs, hands, faces and heads were considered in relation to each other and in terms of various combinations. Certain disproportions were emphasized and correlated with dominant personality traits indicating disorders and quantitative differences in stability, integration, sensitivity and complexities in the personality—"individuals with traits indicating 'soundness,' stability, integration, vitality and strength of personality have fewer disproportions in their physiques

than the average of the group." Disproportions are probably constitutional in the sense that there is a "genetic element in the determination of personality and behavior." The author states that further study is necessary to determine the validity of the genetic component concept.

Felix Post(3), of Edinburgh, in an evaluation of the factors involved in 100 coal miners with mental illnesses, found that serious personality problems were of far greater importance in the etiology of the conditions than were occupational factors. These patients represented a fairly wide range of types of mental disorder. It is of some interest to note that the special stress associated with underground labor seemed to rank higher as a precipitating feature in the hysterical and anxiety depression cases than among the other types. The rôle played by the work of the miner in his mental attitudes and troubles is well presented.

Two attempts to predict the length of hospitalization of schizophrenic and manic-depressive patients on their first admission was reported by Dunham and Meltzer(4). Six hundred and eighty-nine cases were evaluated on the basis of data comprising 30 factors to which predictive weights were assigned. The other attempt was based on the assignment of predictive weights to 3 factors utilizing the same cases. These factors, namely duration of psychosis before hospitalization, mental status and insight into the condition, have some bearing on the length of the period of hospitalization necessary. Schneck(5) has offered a working scheme to evaluate an anxiety reaction. The nature and extent of external stresses affecting the individual in terms of producing anxiety are evaluated as to their subjective and objective significance. Evidence of predisposing factors in cases where there is very little external stress is brought prominently into the discussion. Anxiety reactions attain dynamic significance if they are divided and studied as "primary" and "secondary" in significance. These designations have been found useful in practice. Spiegel and

Oberndorf(6) point out that the causes of narcolepsy remain obscure, but are usually ascribed to some type of organic brain disease. They present a case of these uncontrollable attacks of sleep for the purpose of showing unusual psychogenic factors. Mental catharsis by means of disclosing memories, both forgotten and suppressed, seems to have been effective in removing the principal symptom. Psychogenic narcolepsy appears to be a means of unconsciously satisfying forbidden wishes without a feeling of guilt. A conscious sense of guilt made its appearance when the narcolepsy was removed.

A study to determine to what extent the choice of perversion is influenced by the characteristic of the ego was carried out by Bychowski(7). Apparently the type of perversion is not determined entirely by libidinal difficulties. Persistence of unaltered infantile attitudes is a pronounced feature of the ego of homosexuals. This feature is easily evoked and the patient utilizes freely his old ego. Clinical observations are presented in detail.

There has been a sustained activity in the field of "psychosomatics" which has become popular as a research focus. That mental illnesses may be modified favorably by physical disorders constitutes the subject of a study of Clow and Prout(8). Definitely improved mental states of various kinds were preceded by several types of physical disorders including major surgical procedures, acute infections, accidental injuries, and suicidal attempts. In nearly a third of the cases the improvement was sufficiently permanent to allow discharge from the hospital, and in many of these the favorable state continued. A number of particular features which seem to have some bearing on the results are discussed.

Bennett(9) in his detailed analysis of 150 patients who finally came for psychiatric treatment, revealed that they had been diagnosed and treated for an astonishingly large number and variety of organic diseases, most of which did not exist. The histories of these patients as a group revealed 496 medical treatments, 244 surgical procedures, and 71 miscellaneous therapeutic attempts. Most of these patients were suffering from in-

voluntional melancholia or psychoneurotic ailments. After proper psychiatric therapy was instituted the percentage of complete and social recoveries was excellent.

The relation of the total circulatory function to the life situation of the individual is pointed out by Wolf and Wolff(10) who analyzed symptoms referable to the cardiovascular and respiratory systems in persons with and without heart disease. Daily observations were made in an effort to evaluate such symptoms as dyspnea, palpitation, cardiac pain, dizziness, faintness and fatigue. Personality organization and various stresses of daily life are brought into the foreground as etiological and modifying factors in cardiovascular complaints.

Decourt(11) describes a series of 13 cases of a syndrome characterized by amenorrhea, anorexia and rapidly developing cachexia in young women between the ages of 15 and 32. In 12 of the patients recovery was effected by psychotherapy. They were apparently rather typical anorexia nervosa reactions. The differential diagnosis from Simmond's disease is discussed in some detail.

Nicholson(12) studied the effect of psychotherapy without the use of special diets in the treatment of 38 obese persons; comparing these with groups of similar age and sex distribution managed by other methods. As success was obtained in a higher percentage of the cases treated with psychotherapy (26 successes, 12 failures) than by any of the methods used in the control groups, it seems probable that emotional factors play a dominant rôle. The psychological findings in the case histories and personality studies support this assumption. In 35 diet controlled cases treated without psychotherapy there were only 9 successes.

Squier and Dunbar(13) present material dealing with spontaneous abortion, premature delivery, still birth and normal full term pregnancies. Their case studies bring a number of emotional factors into the foreground emphasizing the particular features that should be taken into consideration by the obstetrician. The contribution opens up a field of importance that "may be called *psychosomatic obstetrics*" which promises much of practical value for the future. Dys-

menorrhoea, dyspareunia, frigidity, some of the aspects of toxemia of pregnancy, lactation and various features of labor and the puerperium are also among the psychosomatic problems confronting the gynecologist and obstetrician.

A psychosomatic study of enuresis was made by Stalker and Band(14) from the University of Edinburgh. A conclusion that persistent enuresis is not merely a symptom, but is a special disease was reached after the investigation of 67 cases of the disorder. As a syndrome it has emotional and physical components and involves the total personality. Psychiatric methods of treatment were not outstandingly successful.

Eighty-six unselected military patients suffering from psoriasis were examined psychiatrically by Wittkower(15). Sixty-nine of these were chronic cases and 17 were acute forms. Five personality types were found, as follows—compulsive, overaggressive, bisexual, phobic and hysterical. Considered as a group, it seemed that the emotional factors had played a definite rôle in the etiology in 29 cases, with the possibility that they had been active also in 20 additional ones. There was no uniformity noted in the emotional conflict. The social effect of the skin condition itself is emphasized.

Evidence collected from the study of 20 stuttering psychotic patients by Barbara(16) strongly emphasizes it as an expression of an abnormal mental trend appearing usually early in life. In half of the cases the speech defect was present before the 10th year of age. In most cases a tense, worrisome environment, a specific precipitating event, or history of other stutters in the family were among the findings. In early childhood there are usually traumatic experiences, fright dreams, general emotional instability and enuresis. It is a complex situation which can be understood only through a psychosomatic attitude and study on the part of the physician.

It is apparent that activities in "psycho-surgery" are on the increase and it is rather interesting to note that Frank(17) after a study of 200 prefrontal lobotomy cases finds that it is indicated for patients whose psychosis was sudden in onset, was precipitated by some mental or physical cause, has plastic

symptoms, a cyclic tendency, and relative freedom from deterioration. Any psychiatrist not sympathetic with this method of treatment might ask what more could one wish as a foundation for a good prognosis regardless of therapy used. On the other hand it is said to be contraindicated for those patients whose symptoms as described have always suggested a poor prognosis since the early days of Kraepelin.

Halstead, Carmichael and Bucy(18), reviewing the results of prefrontal lobotomy as reported during the past 10 years, point out that the rates and degrees of improvement claimed have not established any set of criteria for either preoperative or post-operative clinical status. There is little evidence to show that any patient has been studied adequately. Therefore the authors have devised a test to measure objectively the biological intelligence in an attempt to determine what happens in this field when the frontal lobes are disturbed. This paper presents a number of valuable features.

Freeman and Watts(19) reported 311 patients observed during the past 9 years following prefrontal lobotomy. About half of the patients are usefully occupied, one-fourth remain at home, and the rest are dead or in the hospital. The most favorable results are obtained in the obsessive tension conditions, in hypochondriasis, in agitated depressions, and in fixed psychosomatic conditions. Schizophrenias do not react so favorably. For certain reasons it fails in the deteriorated cases. Refinements in the operative procedures are described. Emphasis is placed upon the social adjustments and ability to exist outside the institution in those who would tend to remain chronically ill.

Prefrontal leucotomy in the treatment of 2 cases of post-encephalitic conduct disorders was reported by Thorpe(20) of the Wadsley Mental Hospital, Sheffield. Although both patients were benefited by the operation, which relieved the impulsiveness and irritability, they were still irresponsible according to normal social standards. They are somewhat below the average for intelligence and further development of their personalities is not to be expected.

Neuropathologic problems after lobotomy were reviewed by Meyer and Beck(21).

One patient in whom prefrontal lobotomy was done was a mentally normal person suffering from a basal meningioma. It proved to be an interesting test case for complete severance of fiber tracts. Several cases showing various complications and results are discussed, and a number of features having a relation to the operative technique are presented.

Barretto(22) reported the use of a personally devised lobotome which serves three useful purposes, namely, of locating the reference marks, of severing the tract fibers and of depositing iodine oil in the transection area. He emphasizes the value of pre-operative pneumoencephalography for the localization of the ventricles.

#### BIBLIOGRAPHY

1. Masserman, J. H. Principles of dynamic psychiatry. Philadelphia, W. B. Saunders Co., 1946.
2. Seltzer, C. C. Body disproportions and dominant personality traits. *Psychosom. Med.*, VIII: 75, 1946.
3. Post, F. A study of psychiatric illness on coal miners. *J. Ment. Sci.*, 92: 574, 1946.
4. Dunham, H. W., and Meltzer, B. N. Predicting length of hospitalization of mental patients. *Am. J. Sociol.*, LII: 123, 1946.
5. Schneck, J. M. Classification of anxiety reactions. *J. Nerv. and Ment. Dis.*, 103: 81, 1946.
6. Spiegel, L. A., and Oberndorf, C. P. Narcolepsy as a psychogenic symptom. *Psychosom. Med.*, VIII: 28, 1946.
7. Bychowski, G. The ego of homosexuals. *Internat. J. Psychoanal.*, XXVI: 114, 1945.
8. Clow, H. E., and Prout, C. T. A study of the modification of mental illness by intercurrent physical disorders in one hundred patients. *Am. J. Psychiat.*, 103: 179, 1946.
9. Bennett, A. E. Faulty management of psychiatric syndromes simulating organic disease. *J. A. M. A.*, 103: 1203, 1946.
10. Wolf, G. A., and Wolff, A. G. Studies on the nature of certain symptoms associated with cardiovascular disorders. *Psychosom. Med.*, 8: 293, 1946.
11. Decourt, J. Mental anorexia and so-called hypophyseal cachexia. *Paris Med.*, 1: 249, 1946.
12. Nicholson, W. M. Emotional factors in obesity. *Am. J. Med. Sci.*, 211: 443, 1946.
13. Squier, R., and Dunbar, F. Emotional factors in the course of pregnancy. *Psychosom. Med.*, VIII: 161, 1946.
14. Stalker, H., and Bang, D. Persistent enuresis: A psychosomatic study. *J. Ment. Sci.*, 92: 324, 1946.
15. Wittkower, E. Psychological aspects of psoriasis. *Lancet*, I: 566, 1946.
16. Barbara, D. A. A psychosomatic approach to the problem of stuttering in psychotics. *Am. J. Psychiat.*, 103: 188, 1946.
17. Frank, J. Clinical survey and results of 200 cases of prefrontal leucotomy. *J. Ment. Sci.*, 92: 497, 1946.
18. Halstead, W. C., Carmichael, T. T., and Bucy, P. C. Prefrontal lobotomy: A preliminary appraisal of the behavioral results. *Am. J. Psychiat.*, 103: 217, 1946.
19. Freeman, W., and Watts, J. Prefrontal lobotomy: Survey of 311 cases. *Am. J. Med. Sci.*, 211: 1, 1946.
20. Thorpe, F. T. Prefrontal leucotomy in treatment of post-encephalitic conduct disorder. *Brit. Med.*, I: 312, 1946.
21. Meyer, A., and Beck, E. Neuropathologic problems arising from prefrontal leucotomy. *J. Ment. Sci.*, 91: 411, 1945.
22. Barretto, A. C. Prefrontal lobotomy. *Arquivos de Neuro-Psiquiatria*, Sao Paulo, 3: 420, 1945.
23. Masserman, J. H. Psychogenic vomiting. *J. Nerv. and Ment. Dis.*, 103: 224, 1946.
24. Camargo Pacheco, V. de, and Mathias, I. Allergic psychoneuroses. *Archivos de Neuro-Psiquiatria*, 3: 436, 1945.
25. Freeman, W., and Watts, J. W. Pain of organic disease relieved by prefrontal lobotomy. *Lancet*, I: 593, 1946.

#### PHYSIOLOGICAL TREATMENT OF PSYCHOSES

JOSEPH WORTIS, M.D., NEW YORK, N. Y.

The past year has seen some genuine advances in the techniques of electrotherapy, a revived interest in insulin treatment, a variety of clinical observations on the shock treatments with some impressive statistical compilations, and the beginnings of a good theory to explain how the treatments work. The new book on shock treatments by Kalinowsky and Hoch(1), in spite of minor errors

of detail or emphasis, probably represents the best single course of information on these treatments to date. Brain and Strauss(2) have a chapter on electric convulsive treatment in the last edition of their "Recent Advances in Neurology and Neuropsychiatry" and Spiegel's(3) "Progress in Neurology and Psychiatry" has a chapter on shock therapy by Bennett and Engle.

## ELECTRICAL MANAGEMENT OF CONVULSIVE TREATMENT

Sixty-cycle alternating current is used almost universally in electro-shock treatment because the electric utility companies find this the most convenient kind of current to dispense in our cities. As soon as we begin to inquire what kind of current is best suited for treatment we find that the safest, surest, least damaging and most effective current is a unidirectional brief impulse (one third of a millisecond instead of the 10 to 16 milliseconds now used) administered at a rate of 100 to 200 per second at milliamperages substantially less than those now employed (4). Even with the 60-cycle alternating current, many of the apparatuses now in use give unreliable current control. Olsen and Dale(5) recommend a circuit incorporating a light bulb to insure adequate current control, and to obviate the necessity for split second timing they recommend a dosage of 200 milliamperes for about 10 seconds, after which a fit supervenes. Wilcox(6) proposes a technique in which a modified half-wave rectified 60-cycle current is applied for about a second. In this way, only one-fifth to one twenty-fifth of the usual milliamperage is required to induce a convulsion. In addition, this author finds that application of the positive electrode to the vertex, with the negative electrode in the usual left temporal position, markedly diminishes confusion and memory difficulties even when treatments are given daily.

## SAFETY FACTOR OF CONVULSIVE TREATMENT

If further work confirms these developments, courses of treatment may be both intensified and shortened, or can be safely administered in resistant cases for long periods of time. Even in its present form the treatment appears to have a wide margin of safety. Many elderly patients up to the age of 82 have been treated, without mishap(7). Jacobs and Gilson(8) suggest the possibility of shorter and more intensive treatment and cite the example of a schizophrenic girl treated with 33 convulsions on 9 treatment days, with as many as 8 treatments in a day. There then followed several days of marked confusion and almost vegetative behavior after which she made an ex-

cellent adjustment which was then well maintained. Zeifert(9) proposes an intensive electro-shock regimen for the treatment of wildly excited cases, even when associated with fever, as a life-saving measure. Treatments are given frequently, at intervals of 8 to 12 hours, for the first few days, coupled with intravenous hypnotics in the intervals. In addition blood plasma, amigen and hourly tube feedings are employed to combat dehydration and protein depletion. He believes that feedings should total 7000 calories, with 200 grams of protein in a 24-hour period, with at least 5000 cc. of fluid ingested. Gordon and Zimble(10) have managed a number of very excited and troublesome chronic cases with intensive and frequent electro-shock treatments over a period of several years, some of them having already received several hundred treatments, with general clinical improvements at the expense of some amnesia. In a study of one case that improved clinically in the course of 248 shock treatments Perlson(11) found surprisingly little intellectual defect. Kerman(12) also advises maintenance treatments in patients who tend to relapse.

## SUPPLEMENTARY MEDICATION IN ELECTRO-SHOCK TREATMENT

Rubenstein(13) continues to report good results with the preliminary intravenous injection of 2.5% pentothal sodium, injected at the rate of one c. c. per minute until sleep supervenes. Ten to twelve c. c. are usually required. After a lapse of a few minutes, as the patient begins to arouse, the usual convulsive dose is administered. The technique is useful to relieve anxiety, especially in fearful relapsed cases. To allay post-convulsive excitement Baumoll(14) recommends the slow intravenous administration of a small amount of sodium amytal immediately after the convulsion. Gottsfeld(15) successfully used curare in the convulsive treatment of cases complicated by a variety of orthopedic conditions, and Palmer(16) recommends its wider use; but the near-fatality reported by Beard and Harris(17) is a reminder that curare is dangerous and should be saved for special indications.

### INSULIN TREATMENT

The end of the war has allowed a revival of interest in the relatively time-consuming use of insulin shock treatment. Gralnick(18) reports on a large series of nearly 300 cases, and concludes that insulin is still the treatment of choice for schizophrenia; though he notes that a substantial number of unsuccessful cases responded to a subsequent course of electro-shock treatment. Prognostically poor cases are associated with long periods of treatment, but it is wrong to conclude, as Gralnick seems to do, that the shorter the treatment is, the better the results. Hohm(19) confirms the value of small insulin doses (30 to 60 units, with three hours of hypoglycemia) in the treatment of a variety of cases with anxiety, depression and hypochondriasis. In the management of the most typical and dangerous complication of insulin treatment, irreversible coma, Kleinschmidt(20) recommends the use of adrenal cortical extract, in addition to the blood transfusion, saline and glucose already generally used.

### INSULIN RESISTANCE

The curious phenomenon of insulin resistance noted in schizophrenics by Meduna and others is found by Freeman(21) to be a general tendency of a variety of mentally disturbed cases, not limited to schizophrenia. Some schizophrenics manifest an extraordinary resistance to insulin during treatment. Animal experiments of Goldberg and Jefferies(22) suggest that nicotinyltaurine may provide a relatively non-toxic synergist to reinforce the insulin effect in these cases. Insulin resistant diabetics also appear to have an anti-insulin factor present in their serum(23).

### RESULTS AND VALUE OF THE SHOCK TREATMENTS

Although 10 years have elapsed since the introduction of shock treatments to this country, statistically reliable large scale reports upon which an evaluation can be based are far too few. Danziger(24) deserves much credit for establishing the best statistical base-line to date for evaluating therapeutic results. His analysis is based on the U. S. Bureau of the Census report on state hospital

populations in 1933. According to these figures, of every 100 cases of dementia praecox admitted to state hospitals it is likely that 44 cases will be discharged as recovered or improved within a 20-year period. The corresponding figure for the end of a 5-year period is 17. It should be noted that these cases represent a miscellaneous group of various periods of duration of illness at the time of admission. Though no exactly equivalent miscellaneous group can be compared, Danziger and Kindwall(25) computed that in cases of less than 6 months duration given adequate modern treatment, 70% may be expected to recover with electro-shock treatment and 89% with insulin treatment. The authors regard 25 electro-shock treatments or 50 insulin coma treatments as a desirable minimum in unresponsive cases. Their figures exclude cases with mere improvement. To quote their conclusion, "Allowing for possible differences in criteria of improvement, the difference between the control and the shock groups is remarkable. The odds against such a difference being due to chance are, by the Pearson Chi square test, more than a billion to one." In another report Danziger and Landahl(26) attempt an ingenious mathematical formulation of these statistical correlations.

Kino and Thorpe(27), Sands(28) and Reznikoff(29) respectively report three separate series of cases totalling over 1000 treated by electro-shock. The general consensus of results is familiar; the treatment is almost specific for depressions, manic cases are more resistant, results are good in early schizophrenia but longer periods of treatment are required. Norman and Shea(30) could secure only 7% remission in schizophrenic cases of over one year's duration. Geoghegan(31) presents a striking case of recurrent manic excitement successfully treated with electro-shock. Feldman, Susselman(32) *et al.* found it valuable in the treatment of 2 cases of hysteria involving tremors and amnesia. Taylor(33) successfully treated 19 epileptics with electro-shock, almost completely eliminating spontaneous seizures. Three convulsions in a week are administered at first and gradually decreased in successive weeks until a stable regimen of one treatment a week is maintained. If spontaneous convulsions recur the frequency of

treatment is increased. No sedation nor special diets are required.

Sands(28) treated 2 women in early pregnancy with electro-shock without impairment to the offspring. McConnell(34) had the same experience with 2 women treated with insulin coma. Two of Gralnick's(35) cases treated with electro-shock and sub-shock in insulin suffered stillbirths. Pregnancy is no contraindication to treatment, but it carries certain dangers and requires cautious management of treatment.

#### ELECTRONARCOSIS AND PROLONGED NARCOSIS

Valuable and promising work with electro-narcosis is continuing(36). A 60-cycle alternating current is used with temple placement of the electrodes. The initial current is 160 to 200 milliamperes, reduced after 30 seconds to 60 to 75 milliamperes, where it is maintained for about 7 minutes, or until treatment is terminated. The condition of the patient during this period may be described as an uneasy sleep with temporary respiratory arrest, flushing and salivation, with some spasticity and forced grasping. In a series of 1400 treatments no dangerous complications were encountered. The results appear to be comparable to those with insulin, though the management of treatment at the present stage appears to be more difficult and dangerous.

Parfitt(37) makes a plea for the inclusion of prolonged barbiturate narcosis in the therapeutic armamentarium particularly for use in cases where insulin or electro-shock treatments have proven ineffective.

#### OTHER TREATMENTS

Several authors have suggested various treatment procedures of unproven value: tuberculin(38), estrone(39), methyl guanidine(40), and corpus luteum hormone(41). Dilantin(42) is said to be of value in allaying certain types of excitement. In a full discussion of the value of benzedrine in clinical psychiatry, Sereiskii(43), a Soviet author, reaches conclusions essentially similar to those reported in the American literature. He feels that it is of value wherever an asthenic state is present and believes it has

a selective action on diencephalic functions. Penicillin has proven to be useful in certain toxic infectious psychoses(44). For some valuable recent discussions on biochemical and dietary aspects of psychiatry, the reader is referred to the Proceedings of the Royal Society of Medicine(45, 46). Hardwick(47) offers case reports to support his conclusion that several different types of acute psychoses may be due to vitamin deficiencies, not necessarily dietary in origin.

#### THEORY OF SHOCK TREATMENT

The explanation that shock treatments effect cures by destroying brain tissue is much too simple. It has also been shown repeatedly that the massive discharge of neurons by electrical shock does not in itself lead to any ascertainable cellular damage(48). Moreover a considerable variety of procedure and accidents can produce ameliorative changes in psychoses; spontaneous improvement following intercurrent physical disorders is by no means uncommon. In a systematic study(49) it was found that general anesthesia and acute infectious illness are especially likely to provoke remissions, particularly in recent cases. On the basis of a series of animal experiments Gellhorn(50) suggests that the mechanism of the insulin coma effect lies in its tendency to restore inhibited conditioned reactions, possibly through a strengthening of hypothalamic discharges to the cortex. Wilcox(6), also using Pavlovian concepts, regards the essential feature of electro-shock treatment a facilitation of cortical processes to break through a general state of cortical inhibition. The presence of some such general state of altered tension is also suggested by a mathematical analysis of certain qualities of psychotic thinking(51). The chief of the psychiatric clinic of the Pavlov Institute in Leningrad(52) believes that the common factors in all of these treatments are the production of cortical depression or inhibition coupled with subcortical release or vegetative mobilization. On the basis of this theoretical picture various combinations of sleep and convulsive therapy are used at his clinic with good results. Are we entitled to hope that these neurophysiological concepts will provide the missing link or meeting ground for the various contending views that have

developed in our understanding and treatment of psychoses?

### BIBLIOGRAPHY

1. Kalinowsky, L. B., and Hoch, P. H. Shock treatments. Grune & Stratton, New York, 1946.
2. Brain, W. R., and Strauss, E. B. Recent advances in neurology and neuropsychiatry, J. and A. Churchill, London, 1946.
3. Progress in neurology and psychiatry, Edited by E. A. Spiegel. Grune & Stratton, 1946.
4. Liberson, W. T. Connecticut M. J., 10:754, 1946.
5. Olsen, C. W., and Dale, L. C. Arch. Phys., 27:488, 1946.
6. Wilcox, P. H. Dis. Nerv. Syst., 7:201, 1946.
7. Feldman, F., Susselman, S., Lipetz, B., and Barrera, S. E. Arch. Neur. Psychiat., 56:158, 1946.
8. Jacobs, J. S. L., and Gilson, W. E. Wisconsin, M. J., 45:395, 1946.
9. Zeifert, M. Dis. Nerv. Syst., 7:112, 1946.
10. Gordon, G. J., and Zimbler, M. B. Delaware M. J., 18:125, 1946.
11. Perlson, J. Arch. Neur. Psychiat., 54:409, 1945.
12. Kerman, E. F. J. Nerv. Ment. Dis., 102:231, 1945.
13. Rubinstein, H. S. Dis. Nerv. Syst., 7:27, 1946.
14. Baumoll, S. Dis. Nerv. Syst., 7:151, 1946.
15. Gottesfeld, B. H. Conn. M. J., 10:756, 1946.
16. Palmer, H. J. Ment. Sc., 92:411, 1946.
17. Beard, B. H., and Harris, T. H. Dis. Nerv. Syst., 7:276, 1946.
18. Gralneck, A. Am. J. Psychiat., 102:583, 1946.
19. Hohm, L. B. Dis. Nerv. Syst., 7:293, 1946.
20. Kleinschmidt, H. J. Acta Med. Orient., 5:45, 1946.
21. Freeman, H. Arch. Neur. Psychiat., 56:74, 1946.
22. Goldberg, A. A., and Jefferies, H. S. Q. J. Pharm., 19:48, 1946.
23. Felder, L. J. Clin. Endocr., 6:339, 1946.
24. Danziger, L. Dis. Nerv. Syst., 7:229, 1946.
25. Danziger, L., and Kirnwall, J. A., *Ibid.*, 7:299, 1946.
26. Danziger, L. and Landahl, H. D. Bull. Math. Biophys., 7:213, 1945.
27. Kino, F. F. and Thorpe, F. T. J. Ment. Sc., 92:138, 1946.
28. Sands, D. E. Brit. M. J., 2:289, 1946.
29. Reznikoff, L. J. M. Soc. N. Jersey, 43:269, 1946.
30. Norman, J. and Shea, J. T. N. England J. M., 234:857, 1946.
31. Geoghegan, J. J. Canad. M. Ass. J., 55:54, 1946.
32. Feldman, F., Susselman, S., *et al.* J. Nerv. Ment. Dis., 102:498, 1945.
33. Taylor, J. H. Dis. Nerv. Syst., 7:284, 1946.
34. McConnell, J. J. Ment. Sc., 91:506, 1945.
35. Gralnick, A. Am. J. Psychiat., 102:780, 1946.
36. Tietz, E. B., Thompson, G. N., van Harreveld, A. and Wiersma, C. A. G. J. Nerv. Ment. Dis., 103:145, 1946.
37. Parfitt, D. N. J. Ment. Sc., 92:128, 1946.
38. Hyvert, M. Ann. Méd. psychol., 104:164, 1946.
39. Baruk, H., and Racine, M. Ann. Méd. psychol., 104:169, 1946.
40. Aldrich, C. K. and Dorr, T. O. Psychiat. Q., 19:586, 1945.
41. Billig, O. and Bradley, J. D. Am. J. Psychiat., 102:783, 1946.
42. Kubanek, J. L. and Rowell, R. C. Dis. Nerv. Syst., 7:47, 1946.
43. Sereiskii, M. Y. Am. Rev. Soviet. Med., 3:320, 1946.
44. Graves, T. C. Med. Press & Circ., 215:172, 1946.
45. Proc. R. Soc. M., 38:671ff., 1945.
46. *Ibid.*, 39:142ff., 1946.
47. Hardwick, S. W. J. Ment. Sc., 92:310, 1946.
48. Windle, W. F., and Krieg, W. J. S. Q. Bull. Northwest. Univ. M. School, 19:181, 1945.
49. Clow, H. E., and Prout, C. T. Am. J. Psychiat., 103:179, 1946.
50. Gellhorn, E. Arch. Neur. Psychiat., 56:216, 1946.
51. Rashevsky, N. Bull. Math. Biophys., 8:1, 1946.
52. Ivanov-Smolenski, A. G. Am. Rev. Sov. Med., 4:54, 1946.

### FAMILY CARE AND OUT-PATIENT MENTAL CLINICS IN 1946

HORATIO M. POLLOCK, PH. D., ALBANY, N. Y.

#### FAMILY CARE

The year 1946 witnessed little progress in family care of mental patients. The reasons for this fact are found in the acute housing shortage and in the high cost of living. It has been exceedingly difficult for workers who have charge of placement of mental patients in families to find suitable

homes. The few homes found demanded high rates. To satisfy the families already caring for patients it was necessary to increase allowances to more than double the rate paid previous to the war.

At Newark State School Dr. Jacob Cohen made a survey of the work of the school in the family placement of school-age children.

The facts revealed by the survey confirmed reports previously made that family care was highly beneficial to most of the children and helpful to the families in which the children were placed.

In New York State in general the family-care system for both the mentally ill and mentally defective has held its own, but no material increase in 1946 is reported.

The State Department of Public Welfare in Illinois states that "It is with genuine disappointment that the family-care program is reported this year." During the year there were only 121 new and 47 renewed placements, as against 362 new and 51 renewed placements the previous year. It is noteworthy that of the 168 patients placed, 97 paid for their care by their own earnings and 29 others reimbursed the families from their own funds.

The Department of Mental Hygiene in California also reports a decline in family care. In September, 1946, the mental patients in families numbered 216 as compared to upwards of 400 previous to the war. In order to induce families to receive patients the rate has now been increased to \$45 per month per patient.

The Massachusetts Department of Mental Health likewise states that the family-care program "has very definitely gone backward in most of our hospitals."

There is a general feeling that for certain types of patients family care is to be preferred to institution care and it seems probable that when more normal conditions are established advances will be made by several states in the placement of patients in families.

#### OUT-PATIENT MENTAL CLINICS

Noteworthy advances in out-patient clinic work have been projected during the current year, but their full realization has not been achieved. The National Committee for Mental Hygiene issued, early in the summer, its comprehensive directory of mental clinics in the United States. The directory indicates that many of the clinics which were more or less inactive during the war will soon be functioning on a pre-war basis.

The Department of Mental Hygiene in New York State received from the last legislature an increase of \$120,000 in its

annual budget. A considerable proportion of this fund is to be used in expansion of its child guidance clinics. The program calls for the organization of three new child guidance clinic teams as a first step and four others will follow as soon as personnel therefor becomes available. Four clinic teams are already operating. Each team is made up of a psychiatrist, a psychologist, two social workers and a stenographer. The present teams work out from four cities and provide service for 110 cities and towns throughout the state. Under the new set-up it is proposed to hold 350 clinics monthly, as compared with 140 during the peak year of 1941.

The Illinois Department of Public Welfare reports that the increase in mental clinic attendance during the past year has been 37 percent. The year's attendance reached 11,967.

Father Noel Mailloux, professor of psychiatry at the University of Montreal, reported at the annual meeting of the American Association on Mental Deficiency, held in Montreal the first week in October, that arrangements had been made for the establishment of a new mental hygiene clinic to serve the French speaking people of Montreal.

The California Department of Mental Hygiene opened a new out-patient mental hygiene clinic in Los Angeles during the year. Authorized for this clinic are two psychiatrists, one psychologist, three psychiatric social workers and two clerks. The clinic will serve patients with mental disease, alcoholism, behavior problems and other mental disorders.

The Veterans Administration has established numerous mental hygiene clinics in various parts of the country to serve veterans suffering with mild mental disorders.

Very little psychiatric literature of note pertaining to out-patients was published during the year.

#### BIBLIOGRAPHY

Personal communication from Dr. William Charles Inman, Assistant Commissioner, Massachusetts Department of Mental Health.

Annual Directory of Mental Hygiene and Child Guidance Clinics in the United States. Issued by the National Committee for Mental Hygiene, 1946.

Annual Report of Illinois State Department of Public Welfare for 1945-46.

Newspaper release of the New York State Department of Mental Hygiene. June 16, 1946.

Personal communication from Dr. Lawrence

Kolb, medical deputy director, California Department of Mental Hygiene.

Cohen, Jacob, M.D., Newark, New York. Survey of a State School Program for Family Care of School Age Children, 1946.

## PSYCHIATRIC NURSING

MARY E. CORCORAN, R.N., WASHINGTON, D. C.

Appreciable progress in psychiatric nursing may be noted during the year 1946. Mental hospitals in some areas are welcoming back nurses and attendants formerly in military service.

Some hospitals are benefiting by their participation in the student nurse cadet corps program. As former members of the corps complete their basic education they accept appointment to the nursing staff as graduate nurses.<sup>1</sup>

Professional nursing organizations at national, regional and state levels indicate sustained interest in the existing need for improvement in the care of hospitalized mental patients and in the influence public health nurses may exert in promoting mental health. For example, under the auspices of the Nursing Information Bureau of the American Nurses Association,<sup>2</sup> studies have been made indicating the numerical need of graduate nurses in mental hospitals.

Also, the National Organization for Public Health Nursing organized a committee to determine the best method of providing consultative service in mental hygiene for public health nurses. The entire committee met in New York City and subcommittee groups have met where they could do so conveniently. The study is being continued.

The New England Nurses Association offered a mental hygiene institute in Boston, February 1946. The University of Kansas included a period devoted to psychiatric nursing in a refresher course offered veteran and civilian nurses in Kansas City, May 1946.

Maine, Kansas and West Virginia state nursing organizations included sessions and round table discussions on mental hygiene and psychiatric nursing at their annual meetings.

The Western State Psychiatric Institute and Clinic, University of Pittsburgh, on its program presented April 4 and 5 at the University of Pittsburgh, included a section on nursing.

New York, Ohio and New Jersey added nurses to their staffs of consultants to the Commissioner of Mental Hygiene or Welfare.

The U. S. Veterans Administration appointed a psychiatric nursing consultant to the nursing service.

Two nurses from public health hospitals completed a year of postgraduate study in June and have returned to their respective positions. They were succeeded in postgraduate work by two others. Two additional nurses have been selected from the Division of State Services for postgraduate study in psychiatric nursing. An increasing number of inquiries from nurses throughout the country concerning needs and opportunities in psychiatric nursing have been received.

On June 14 a course in psychiatric nursing for army nurses was inaugurated at Brooke Medical Center, Fort Sam Houston, Texas. Psychiatric nursing is to be made a part of the army nurse's basic education and it is to be hoped that, eventually, every nurse who serves with the Army will have the opportunity to take the course.<sup>3</sup>

On May 1, twenty navy nurses began a new postgraduate course in psychiatric nursing at the Pennsylvania Hospital, department of mental and nervous diseases, in Philadelphia.<sup>4</sup>

Enactment of the National Mental Health Act, approved July 3, 1946, will provide postgraduate education in psychiatry for qualified nurses. Educational institutions will

<sup>1</sup> New Jersey State Hospital in Trenton.

<sup>2</sup> Facts About Nursing, 1945, pp. 52 and 56.

<sup>3</sup> The American Journal of Nurses, July 1946, p. 497.

<sup>4</sup> Ibid.

be enabled to provide programs for nurses, social workers, psychologists and other professional personnel when enabling funds are made available.<sup>5</sup>

<sup>5</sup> Address by Thomas Parran, M.D., Surgeon General, USPHS, at Biennial Nursing Convention

All hospitals and communities report serious shortage of qualified nurses for responsible administrative and teaching positions. Mental hospitals share in this deprivation.

of the National Organization for Public Health Nursing, Atlantic City, New Jersey, September 24, 1946.

## PSYCHIATRIC SOCIAL WORK

THOMAS A. C. RENNIE, M.D., NEW YORK, N. Y.

The year was characterized by marked activity both in terms of publications and the opening of responsible positions. The Veterans Administration has taken on very well qualified people in branch and regional offices and in specific institutions. Late in the year psychiatric social work consultants were appointed to the National Committee for Mental Hygiene and the U. S. Public Health Service, Ethel Ginsburg the former; Daniel O'Keefe the latter. The 12 schools of social work which give complete training in the psychiatric social work specialty report that the courses are crowded and many applicants had to be turned away.

There have been developments in many directions as reflected from publications during the year. A good number of articles have appeared on military psychiatric social work, some of which not only report the facts regarding this work in the military service, but also note the implications for future work in civilian agencies(1-7). This is particularly true of Beck's treatise on "Short Term Therapy in an Authoritative Setting"(8).

A few articles appeared also which deal with the value of social histories in military selection(9), the by-products in terms of better understanding of social work on the part of the lay public(10) and possible uses to which something like medical survey of the Selective Service System could be put under peace time conditions(11).

With demobilization came increased need for psychiatric social work as a service to veterans. The VA needed hundreds of workers to staff their hospitals and out-patient clinics. The Red Cross has continued to use large numbers transferring many from hospitals to the Home Service Division(12).

Others have played leading roles in the organization and staffing of some of the larger Veterans' Information and Service Centers(13). Some worked in special rehabilitation clinics and other community clinics serving veterans(14-16). Special adaptations were required in all these set-ups, but knowledge of military life, of the psychiatric casualties, of environmental tensions upon discharge and of the numerous regulations pertaining to veterans are essential.

A review of the year's literature reveals many areas of special interest and application. Psychiatric social work is obviously done with almost all groups of persons who have any kind of emotional or psychiatric disability. A mere glance at the titles indicate that work is being done with the mentally ill who have been hospitalized(17-20) adolescents(21), sex offenders(23), tuberculars(24, 25) with parents and children(22, 26-28) and in such special situations as community centers(29) and a teaching unit for medical students(30). Woodward's presentation before the Senate hearing on the National Mental Health Bill presents in summary form the various functions of psychiatric social work in a national mental health program(31).

The transition period from war to peace has been marked by critical evaluation in psychiatric social work as well as in psychiatry. Several articles have re-examined the function of psychiatric social work showing both its overlapping with psychiatry and more particularly its own special province (8, 15, 32, 33). Beck stresses the fact that in the military "it was necessary for both psychiatrist and case worker to give up the semantical juggling act of calling therapy 'case work therapy' when it is done by the

case worker and again 'psychotherapy' when it is done by the psychiatrist, when, as is the case in many situations, it is the same process. In military psychiatry the accent was taken from the occupational title of the therapist and placed on the skill of the therapist. The difference in therapeutic skills of individuals was recognized and the psychiatrists assigned the person best qualified to conduct therapy with each case in question" (8). Ross (15) and Rockmore (32) point out that the broad but specialized training and experience of the social worker distinguishes the social worker's function from that of the psychiatrist, although both do engage in therapy. The social worker's task, as Rockmore states, "presumes a thorough and applied knowledge of the nature and varieties of human behavior" and in the words of Ross, "case work consists of assisting the patient to come to terms with his illness or emotional upset and to utilize the relation with the case worker to mobilize what desire and capacity he has to do something about getting better." Further evidence that psychiatric social workers are critically evaluating their viewpoints and methods and the public's attitude toward them appears in articles by Hagen and Barnes which were presented at one of the AAPSW's programs at the National Conference of Social Work (34, 35). Other articles deal with transference and client resistance (36, 37).

During the year two full-sized volumes appeared which are of special interest to psychiatric social workers. Lowrey's, "Psychiatry for Social Workers" (38) is primarily a book on psychiatry, but points it up with special application to the field of social work. Witmer's "Psychiatric Interview with Children" (27) focusing on psychiatric rather than social work interviews, has much valuable information about the psychiatric social work done with the children and other members of the families. Psychotherapy, as reflected in this book, is not limited strictly to the medical profession inasmuch as two of the cases were contributed by clinical psychologists, one by a lay analyst and one by a doctor of education.

The literature of the year also reflects a growing interest among psychiatric social workers in the use of group techniques. Tropp (5) describes the military social

worker as a true leader; Greving (39) has applied the findings of military social work to the field of institutional care, and Vassar (40) describes group treatment in a convalescent clinic. Towles (42) stresses the contributions of social case work to the work of other professions and to the understanding of individuals and the relationships between people. One article that applies the findings of the field to the lay public is Woodward's article on "Basic Training" which appeared in *Parents' Magazine* (41).

#### BIBLIOGRAPHY

1. O'Keefe, D. E. A report on military psychiatric social work. Newsletter (AAPSW), Spring 1946.
2. Markkanen, E. Social work in a military setting. *Ment. Hyg.*, July 1946.
3. Ross, E. H. What's so different about army psychiatric social work? *The Family*, April 1946.
4. Schuldt, L. J. Psychiatric case work in an army air force hospital. *Soc. Serv. Rev.*, June 1946.
5. Tropp, C. The military social worker as a discussion leader. *The Family*, Feb. 1946.
6. Lehman, A., and Ginsberg, M. I. In-service training in military social work. *The Family*, April 1946.
7. Michaels, J. J., de Beyher, K., Klapper, M. Social work in a neuropsychiatric section of a military general hospital. *Am. J. Orthopsychiat.*, June 1946.
8. Beck, B. M. Short-term therapy in an authoritative setting. *Family Service Association of America*, 1946. 113 pages. \$1.25.
9. Will, O. A. The value of the social service history in the detection of those psychiatrically unsuited for military service: A study of 500 enlisted men. *U. S. Naval Military Bull.*, Sept. 1946.
10. Woodward, L. E. Professional social workers as volunteers: Their contribution to selective service. *Compass*, April 1946.
11. Woodward, L. E. A permanent medical survey. *Ment. Hyg.*, April 1946.
12. Weingarten, F. B. Psychiatric social work in the American Red Cross. *Dis. of the Nerv. Syst.*, March 1946.
13. Ginsburg, E. L. Psychiatric social worker in a veterans' service center. Address at Ann. Meet. of Am. Psychiat. Assoc., May 1946.
14. Simon, M., and Brainard, M. Psychiatric problems of point discharges. *J. Soc. Case Work (formerly The Family)*, Nov. 1946.
15. Ross, E. H. Social work's responsibilities for veterans. Address at Nat'l Conf. of Soc. Work, May 22, 1946.
16. Kananin, F. S., and Rhode, C., and Wertheimer, E. Observations from a veterans' clinic on childhood factors in military adjustment. *Am. J. Orthopsychiat.*, Oct. 1946.
17. DeWitt, H. B. Hospitalization of a mentally

ill person. Federater. Federation of Social Agencies of Pittsburgh and Allegheny County, June 1946.

18. Gartland, R. M. Psychiatric social worker in a mental hospital. Federater, June 1946.

19. Field, M. Psychiatric social work with insulin treated patients. State Hosp. Press, Utica, N. Y. 1945. 43 pages.

20. Levine, N. D. The mental patient from the viewpoint of the family agency. Federater, June 1946.

21. Lampron, E. M. The social worker helps handicapped adolescents with emotional problems and acts as part of the medical team to treat the whole child. Child, U. S. Children's Bureau, May 1946.

22. Levinrew, G. L. Psychiatric social work with children who have epilepsy. Newsletter (AAPSW), Spring 1946.

23. Ellis, F. J. Can social workers help the sex delinquent? Newsletter (AAPSW), Winter 1945-46.

24. Axelrad, R. K. Some aspects of the treatment of the emotional problems of the tuberculous. Newsletter (AAPSW), Spring 1946.

25. Cowell, R. O. Rehabilitation of a tuberculous prostitute through social case work. Am. J. Orthopsychiat., Oct. 1946.

26. Maxwell, A. The parent's role in resident treatment. Newsletter (AAPSW), Winter 1945-46.

27. Witmer, H. L. Psychiatric interviews with children. The Commonwealth Fund, 1946. 440 pages. \$4.50.

28. Wertlund, N., and Palumbo, A. Z. Parental rejection of crippled children. Am. J. Orthopsychiat., April 1946.

29. Katz, W. Psychiatric case work counseling in community centers. Ment. Hyg., Jan. 1946.

30. Newcombe, M., and Cook, E. The psychiatric social worker in an out-patient teaching unit for medical students. Bull. of the Mass. Soc. for Ment. Hyg., July 1946.

31. Woodward, L. E. Psychiatric social work in the national mental health program. Newsletter (AAPSW), Winter 1945-46.

32. Rockmore, M. J. A psychiatric social case work orientation to therapy. Address, Annual Meeting APA, May 1946.

33. Ross, H. V., and Johnson, A. M. The growing science of case work. J. Soc. Case Work, Nov. 1946.

34. Hagen, M. What do psychiatric social workers think is the matter with us? Newsletter (AAPSW), Summer 1946.

35. Barnes, M. C. As others see us. Newsletter (AAPSW), Summer 1946.

36. Odmark, M. S. The use of interference in case work treatment. Am. J. Orthopsychiat., Oct. 1946.

37. Wilsnach, W. H. Handling resistance in social case work. Am. J. Orthopsychiat., Oct. 1946.

38. Lowrey, L. G. Psychiatry for social workers. Columbia University Press, 1946. 317 pages. \$3.50.

39. Greving, F. T. Group treatment potentialities in an authoritative setting. Address National Conference for Juvenile Agencies, Detroit, October 5, 1946.

40. Vassar, E. Some considerations on the selection of patients for group treatment in a convalescent clinic. Newsletter (AAPSW), Summer 1946.

41. Woodward, L. E. Basic training. Parents' Magazine, Oct. 1946.

42. Towle, Charlotte. Social case work in modern society. Soc. Serv. Rev., June 1946.

## OCCUPATIONAL THERAPY

LAWRENCE F. WOOLLEY, M.D., ATLANTA, GA.

The outstanding advance in the field of occupational therapy during the last few years has been its progressive integration with other physical therapy measures into departments of physical medicine. This has been important particularly in the rehabilitation program for returning veterans.

The Veterans' Administration has been very active in this development and has installed departments of physical medicine and rehabilitation in all neuropsychiatric units. This program suffers mainly from the difficulty of obtaining trained personnel for the work. Occupational therapy is an integral part of this program.

Similarly, in the various states, depart-

ments of vocational rehabilitation have been set up. In many of these, occupational therapy in the nature of vocational training has been included. A few years ago the Federal grants to aid these projects were made available to neuro-psychiatric patients. Formerly this assistance had been given only for the physically disabled.

Departments of physical medicine have also been added to some of the medical schools and well trained physicians have been procured to head them.

The mental hygiene features of this shift appear to be highly significant. The improvement of morale in people disabled either physically or mentally by fitting them for

some productive and self supporting work is obvious. The directly therapeutic aspects of occupational therapy remain the principal feature, but its adaptation to vocational training has been greatly enhanced and more emphasis is now laid on utilitarian activities which are not only therapeutic, but fit the handicapped and disabled for productive life.

Some attempts have been made to improve the prescription for occupational therapy as in the articles by Franciscus(14) and Hyatt(19). Applications specifically to the mentally ill are contained in the articles by Hewitt(18), Day(17) and Switzer(26). Applications to special problems occur in the articles by Hildenbrand(16) and Cowell(29).

A further interesting advance is the introduction of arts and crafts teaching films for use with neuropsychiatric patients. Katz(21) gives a useful description of their application. The instruction is apparently superior when films are used, and should be conservative of personnel and time.

Haas(34) has depicted a number of aids for the aging or the physically handicapped patient to assist in carrying occupational therapy to him. Some of these are ingenious and all may be quite useful. He stresses the need for emphasis upon the achievement, rather than upon the handicap.

Ross(24) gives plans for home work shops and believes that many post war homes will be so equipped. This would enable the patient to carry on occupational therapy after he has left the hospital and would also serve as a prophylactic outlet in the preservation of mental health.

Ruegnitz(36) and Crampton(37) give examples of the use of music in the recreational and rehabilitation programs. Ruegnitz emphasizes the quieting effect on disturbed patients and gives advice as to program planning. Crampton has considerable interest in the production of music and the beneficial effects that patients derive from such activity.

#### BIBLIOGRAPHY

1. Veterans Administration, Branch Office No. 5 Bull. IB AT10-2, Aug. 1946.
2. Veterans Administration, Branch Office No. 5 Bull. IB AT10-3, Aug. 1946.
3. Veterans Administration, Office of Public Relations, "Call Me Mister" (Rehabilitation), Radio Script No. 78.
4. Veterans Administration, Circular No. 121, Article VII, Medical Rehabilitation Program in V. A. Hospitals, May 1946.
5. Division of Vocational Rehabilitation, State Department of Education, Atlanta, Ga., Rehabilitation News, Vol. 3, No. 2, Nov. 1946.
6. Veterans Administration, Technical Bulletin TB 10A-1, Procedures and techniques for corrective physical rehabilitation of patients with spinal cord injuries, Aug. 1946.
7. Veterans Administration, Tech. Bull. TB 10A-2, Sept. 1946. Corrective physical rehabilitation in neuropsychiatric hospitals.
8. Veterans Administration, Pamphlet 10-10, Handbook for Patients—"What's My Score?" 1946.
9. Bronner, Felix. An analysis of the role and function of educational reconditioning. Occupational Ther. and Rehabil., Aug. 1946.
10. Krusen, Frank H. Physical medicine and rehabilitation: Organization of the physical medicine program and its development in relation to occupational therapy. Ibid. Aug. 1946.
11. Grossman, Maurice. Coordinating occupational therapy and physical medicine in the Veterans Administration Hospitals. Ibid., Aug. 1946.
12. Wright, Marian E. Electric shock therapy with reference to occupational therapy. Ibid., Aug. 1946.
13. Miner, Stella M. S., and Dollins, Margaret. Remedial occupational therapy in an Army General Hospital. Ibid., Aug. 1946.
14. Franciscus, M. L. Occupational therapy: When? Where? How? Ibid., Aug. 1946.
15. Carrington, Evelyn M. Psychological foundations of occupational therapy. Ibid., Aug. 1946.
16. Hildenbrand, Grace C. Occupational therapy in the New York City Home for Dependents. Ibid., Aug. 1946.
17. Day, G. W. Developments in treatment of the mentally ill. Ibid., Aug. 1946.
18. Hewitt, Robert T. Occupational therapy for the psychotic patient. Ibid., Aug. 1946.
19. Hyatt, Gertrude B. Can doses be exact? Ibid., June 1946.
20. Warner, Nathaniel, Raymond, G. Alison, and Jones, Harriet M. The response of patients in a Naval Hospital to occupational outlets. Ibid., June 1946.
21. Katz, Elias H. Arts and crafts teaching films for occupational therapy with neuropsychiatric patients. Ibid., June 1946.
22. Holt, William. Training amputees in Britain. Ibid., June 1946.
23. Raymond, G. Alison. Educational services in a Naval Hospital. Ibid., April 1946.
24. Ross, Fuller. Home work shops. Ibid., February 1946.
25. Dunton, W. R. Jr. Chintz work. Ibid., February 1946.
26. Switzer, Mary E. Rehabilitation and mental handicaps. Ment. Hyg., July 1946.

27. Polivanov, Magda. Creative occupations as a basis for rehabilitation: a personal experience. *Ment. Hyg.*, July 1946.

28. Kubie, Lawrence S. A Program of training in psychiatry to break the bottleneck in rehabilitation. *Am. J. of Orthopsychiat.*, July 1946.

29. Cowell, Ruth Openshaw. Rehabilitation of a tuberculous prostitute through social case work. *Ibid.*, July 1946.

30. Diveley, Rexford L. Rehabilitation of sick and injured. *Occupational Med.*, Sept. 1946.

31. Eastwood, Floyd R. Values and problems in industrial recreation. *Occupational Med.*, Sept. 1946.

32. Covalt, Donald A. The medical rehabilitation program in the Veterans Administration. *Occupational Ther. and Rehabil.*, Aug. 1946.

33. Veterans Administration, Branch office No. 5. Circular No. 47, Oct. 1946.

34. Haas, Louis J. Equipment aids for the aging person. *Occupational Ther. and Rehabil.*, Feb. 1946.

35. Farwell, Marjorie M. Occupational therapy in prevocational exploration, *Ibid.*, Oct. 1946.

36. Ruegnitz, Majorie J. Applied music on disturbed wards. *Ibid.*, Oct. 1946.

37. Crampton, Marion W. Musical magic. *Ibid.*, Oct. 1946.

## PSYCHIATRY IN INDUSTRY

C. C. BURLINGAME, M.D., HARTFORD, CONN.

The industrial health movement, since its inception in the nineteenth century, has pursued a remarkably bifurcated course, for long periods concentrating almost exclusively upon the prevention of specific somatic affections, at others seeking a more global approach to the problem of individual and collective efficiency. The latter orientation, logically the more rewarding, has nevertheless been the more nebulous and inconsistent, standing out with clarity only during times of extraordinary pressure—war for example—when the overall importance of the human factor in industrial accomplishment becomes self-evident.

The science of psychology was the first to show the possibilities of an inclusive approach to problems of industry. When, in 1913, Münsterberg published his "Psychology and Industrial Efficiency" (1), he was a pioneer in a new field, soon to be followed, however, by other workers in applied psychology, who made a series of important contributions relating to fatigue, to the use of tests and measurements in the selection and placement of workers, and to various factors, both psychological and material, affecting work efficiency.

The application of psychiatry to industry, with emphasis upon both the economic and mental hygiene implications, was first essayed in 1915 at the Cheney Silk Company. There it was discovered by the present reviewer, who was the first full-time psychiatrist in industry, that maladjustment in the emotional drives and attitudes of employees

toward the employment situation cost the company more in production than accidents and disease.

World War I gave a tremendous impetus to psychiatry, with a reorientation from the custodial to the therapeutic function, and with lessons from military psychiatry on the importance of individual adjustment and integration which were particularly germane to industrial problems. Yet because psychiatry was oversold in the post-war period and consequently fell into a certain disrepute, its progress in industry was not sustained despite the accomplishment of important ground work during the nineteen-twenties. In 1922, for example, the Metropolitan Life Insurance Company introduced a full psychiatric service within the medical set-up for dealing with problems of maladjustment and early tension in employees, with such satisfactory results that a number of changes in company policy were adopted. In 1924, the R. H. Macy Company also established a psychiatric department for dealing with problems of the nervous workers—20 to 25 percent of all employees according to present-day calculations—and Anderson's history-making book, "Psychiatry in Industry," (1929) showed how this department, with its staff of psychiatrists, psychologists and psychiatric social workers, successfully treated on the job one-half of the problem employees and developed procedures for discovering executive material, and for placement, guidance, selection and promotion of employees (2).

In subsequent years, prior to the second notable impetus provided by another war, progress in industrial psychiatry was slow and undramatic, with management turning more to technology and engineering to solve production problems than to students of human behavior. Some groups incorporated psychiatric techniques in their safety procedures, but on the whole there were no startling advances. One important piece of research was done at the Hawthorne Plant of the Western Electric Company from 1929 to 1933 by the Committee on work in Industry of the National Research Council, furnishing additional data on the relation of job attitudes to productive output. It demonstrated moreover the value of interviewing and counselling as an outlet for employees' feelings and stressed the influence of social relationships inherent in the job situation upon productivity(3).

The impact of World War II, with its tremendous production demands, the shortage of labor, and a consequent use of hordes of individuals not usually considered employable in factory work—women, old people, the handicapped—enormously accentuated interest in the psychiatric approach. The problems of absenteeism, accidents, psychosomatic illness became more acutely significant, and the auditing of jobs in terms of personality requirements and vice versa was subjected to new analysis. The situation was further complicated by the return to civilian life of service discharges, either for physical disability or on a neuropsychiatric basis. In this connection, the most important task was to clear up the wide misunderstanding which grew up during the war regarding the NP discharges, by emphasizing the restricted implications of the diagnosis when made in the military set-up, and the fact that it carries no adverse significance for reemployability in civilian life. The investigation and report of the Sub-Committee on Psychiatry of the National Association of Manufacturers did much to place the question of rehabilitation in reasonable perspective(4).

The reconstruction period finds the province of psychiatry more clearly defined than has hitherto been the case. The main areas of reference are conceded to be teaching, clinical practice and research. All experience

indicates that sound psychiatric principles are inseparably interwoven with good personnel practices, and that most psychiatry in industry will be practiced through established medical staffs, personnel workers and foremen, with the psychiatrist usually employing his technical knowledge more indirectly, as consultant and teacher. Some of the larger companies have full-time psychiatrists and psychiatric departments. Others have part-time psychiatrists serving in an advisory capacity, while in others, the industrial physician, trained in psychiatric principles, applies these principles within the regular doctor-patient relationship. Whatever the set-up may be, it is recognized that the task of the psychiatrist is to fit the man to the job, a job in which he finds satisfaction and an outlet for self-expression. If the psychiatrist is to fulfill his function as a successful representative member of the producing team, he must direct the emotional drives of employees to the needs of the industry, keeping in mind the importance of mutual aims and goals on the part of management and labor.

The year 1946 was highlighted by problems of conversion to peace-time production, with the reintegration of returning veterans of all categories into an industrial ensemble beset by material shortages and labor difficulties, the latter serving to underline in a particularly apposite way the significance of group effort and social solidarity for good morale. Just as the year began an interesting report emanated from the Standard Oil Company on that company's efforts to maintain good-feeling in all employees in service throughout the war. This was accomplished by letters, reassurance, help to dependents, and a well-planned program of reassimilation for disabled and non-disabled alike. As a result, of 8,384 men who left the company for military service, 1,426 were already back on the jobs by mid-1945. Almost without exception they fitted smoothly into civilian routine. The industrial problem the veteran was supposed to bring back with him failed to materialize. The story was somewhat less encouraging, however, among newly hired veterans who were not formerly with the company(5).

Post-war progress in industrial health and

principles of good psychiatric rehabilitation. The Roffey Park Rehabilitation Centre in Horsham, established by the National Council for the Rehabilitation of Industrial Workers, the center was planned as a "working model" rehabilitation center for the investigation and treatment of sub-health in industry. It was subsidized by various firms, employers and other interested sponsors, with partial maintenance derived from patients or local authorities. The center has been operating for two years, with reported excellent results, and in 1946 plans for a training and research department were launched(6). The presence of 1,000 industrial patients each year should provide unique opportunities for teaching on a practical basis. The information gained will be passed on to managerial staff, medical personnel and welfare workers of associated firms, by means of regular two-weekly courses to be held at Roffey Park.

The place of the handicapped in industry received special consideration in the literature of 1946. The experience has been that with proper placement, training and safety precautions, the productivity of the handicapped is equivalent to that of normal individuals and that the accident rate is less. It has been observed that while labor turnover for handicapped veterans returning to old jobs is very low, it is very high for those who have never worked here before(7). The risk entailed in the employment of workers with degenerative disabilities (heart disease, diabetes, epilepsy, etc.) has been found to be far greater than with those having static handicaps such as loss of limbs, partial vision, etc.(8). As far as epileptics are concerned, however, Bridges asserts that 75 percent of them have desirable mental and physical qualifications for job performance, provided they are properly placed(9). Communications on the rehabilitation of amputees and those blinded in the war consistently stress the importance of psychological and emotional factors in successful adjustment. In England, for example, Wittkower and Davenport obtained splendid results in their blinded patients with attention to personality defects, emotional maladjustment and placement. They advocate maintaining as far as possible the social and intellectual level of the

individual, so that work and interest are provided on a long-term basis(10).

From the unique new community at Oak Ridge, Tennessee, came several reports during the year which were of particular importance(11, 12, 13). This teeming, war-spawned town of 75,000 people had all the problems of the ordinary city, plus many special ones incident to the transplanting of thousands of people, inadequate housing and allied difficulties, an atmosphere of danger and secrecy, and other unusual features. It was also purely an industrial community, affording therefore an unparalleled opportunity for the study of the relationships and the correlation between living environment and working environment. Psychiatric assistance was made available in the forms of hospital service, community service, and a program to prevent mental breakdowns within the plants by detection and early treatment. On the basis of this experience, the Oak Ridge psychiatrists conclude that the causes of emotional disturbances in industry lie primarily within the individual and the exciting mechanisms lie in the home or in his social surroundings. In only 10 percent of on-the-job emotional disturbances was the exciting factor found in the industrial environment. However, a minimum amount of on-the-job treatment resulted in a conspicuous on-the-job improvement and in an increased number of home adjustments. This is important from the point of view of the broader aspects of industrial psychiatry, its contribution as an emotional first-aid station, and the new recognition that if the physical and mental health of workers is to be advanced, attention must be paid not only to the working environment but also to conditions outside the plant and to the coordination of industrial facilities with community facilities.

The thesis that certain occupations carry special psychological health hazards for certain types of people was notably expounded by Cameron in a recent article describing five fairly specific danger zones. The first embraces certain jobs, often found in assembly line and inspection work, which call for intense utilization of a limited range of the individual's behavioral equipment. The second, more extensive and difficult to

remedy, is that of fragmented jobs due to modern industrial policy of breaking down a process into parts which can be dealt with by the machine and introducing workers as links to carry on what cannot be done mechanically. A third hazard exists in jobs failing to require full participation of the worker, monotonous jobs which do not demand his full attention yet never permit him complete freedom or relaxation. The fourth relates to tempo, to jobs requiring speed at marked variance with the natural tempo of the worker, yet repetitious at the same time—a circumstance particularly hazardous for those who are over-precise, conscientious and rigid in their requirements upon themselves. Finally there are job settings which are peculiarly hazardous for some individuals: the presence of considerable frustration, the lack of personal contact with the worker's superior, unsatisfying informal organization of the department, etc. Dr. Cameron finds that many of the behavioral reactions in these cases are singularly persistent and incapacitating, and he stresses the importance of preventive measures and early diagnosis (14).

Personality problems in the managerial group are obviously of considerable importance. Meltzer made some interesting observations on the subject in a recent article, pointing out the frequency of hostility and aggression, frustration and anxiety at this level, with personality trends ranging all the way from compliant personalities to over-dominant ones. Frustration in managerial groups is especially prevalent when the original set-up of an organization has not been changed sufficiently to incorporate the growth of the plant. The life-history of a company, states Meltzer, carries with it mores, feelings, sentiments, beliefs and expressions that become stereotyped and fixed. Paranoid and reactionary executives surround themselves with inadequates who will take punishment, but more realistic employers hire the best available brains and skill, recognizing the need for this type of manager for efficient operation (15).

Dershimer stresses the importance of the industrial psychiatrist's learning everything possible about the organization and healthy functioning of the industry with which he is

concerned before tackling indiscriminately the psychiatric problems thereof. This basic knowledge, he points out with considerable justice, has been underestimated in much of the literature of psychiatry in industry. "Industries, like individuals, have their own personalities based on the personalities of top management, on company policies, the type of industry, and a host of other varying factors." There are great variations between different departments of the same industry, differences in the emotional atmosphere, differences too in the physical hazards and in many other aspects which help shape the psychiatric problems of a particular plant. The entire article is a very worthwhile contribution, with practical directives for psychiatry in industry (16).

This cross-section of the considerable literature on the subject of industrial psychiatry appearing in the first post-war year in medical, psychiatric and industrial journals is encouraging evidence of a richly integrated approach to this long neglected branch of the specialty, promising much for its future development as a preventive arm of industrial medicine and as an active force in the field of industrial human relations.

#### BIBLIOGRAPHY

1. Münsterberg, H. *Psychology and industrial efficiency*. London, 1913.
2. Anderson, V. V. *Psychiatry in industry*. New York, Harper, 1929.
3. Humans, G. An outline of the Hawthorne employee relations research. Statement prepared for the Committee on Work in Industry of the National Research Council. Mimeographed manuscript.
4. National Association of Manufacturers Advisory Committee. Subcommittee on Psychiatry. Readjustment to civilian jobs. New York, 1945.
5. Standard Oil Company. For the veteran: a job plus. *The Lamp*, Oct. 1945.
6. Roffey Park Rehabilitation Centre. Prospectus regarding training and research in industrial health and rehabilitation. *Digest Neur. and Psychiat.*, 14:328, June 1946.
7. Industrial Hygiene Foundation. Tenth annual meeting. Productivity of the handicapped. *Ind. Med.*, 15:298-299, April 1946.
8. Poole, F. E. Selective placement of workers. *J. Mich. State Med. Soc.*, 44:1060-1067, Oct. 1945.
9. Bridges, C. D. Epilepsy and job placement. *Ind. Med.*, 15:51-56, Jan. 1946.
10. Wittkower, E., and Davenport, R. C. The war blinded: their emotional, social, and occupational

situation. *Psychosom. Med.*, 8:121-137, March-Apr. 1946.

11. Clarke, E. K. Psychiatric problems at Oak Ridge. *Am. J. Psychiat.*, 102: 437-444, Jan. 1946.

12. Leggo, C., Law, S. G., and Clarke, E. K. Industrial psychiatry in the community of Oak Ridge. *Ind. Med.*, 15:243-252, April 1946.

13. Clarke, E. K., and Law, S. G. Personality

components in employment problems. *Occup. Med.*, 2:116-125, August 1946.

14. Cameron, D. E. Psychologically hazardous occupations. *Ind. Med.*, 15:332-335, May 1946.

15. Meltzer, H. Personality problems in managerial groups. *Ind. Med.*, 15:429-434, July 1946.

16. Dersheimer, F. W. Psychiatry in industry. *Am. J. Psychiat.*, 103:145-148, September 1946.

## ADMINISTRATIVE, FORENSIC AND MILITARY PSYCHIATRY

WINFRED OVERHOLSER, M. D., WASHINGTON, D. C.

### ADMINISTRATIVE PSYCHIATRY

The literature in this field continues to grow, partly on account of military administrative contributions, but perhaps even more because of the growing interest on the part of the public in the details of institutional care of the mentally ill and the shortcomings of that care.

Bowman(1) in his presidential address to The American Psychiatric Association deals, among other important matters, with the criticisms, and discusses the facts and the reasons for the existence of features which merit criticism.

Menninger(2) discusses some of the administrative problems met in an army convalescent hospital, emphasizing the need for cooperation with other specialties and the need of integration of psychiatry with psychology and social work. Hayman(3) presents the administrative aspect of combat psychoneurosis. Blain(4) gives a thoroughgoing presentation of the medical program of the Veterans Administration: many of the salient features of this progressive program are already well known in practice to most of our readers.

Horatio Pollock(5, 6) outlines the history of the family care movement and the requisites for the further development of this form of supervision. He estimates that with the establishment of family care colonies, it would be possible "to use family care for at least one-third of the patients now cared for in institutions for mental defectives and in hospitals for mental disease."

Gamble(7) discusses state sterilization programs.

Johnson(8) presents an extended and careful study of the growing problem of old-

age psychoses. He estimates that as compared with 1207 admissions in this group in 1941, Pennsylvania may expect 2103 by 1950 and 3561 by 1980. He emphasizes the importance of the recognition of this as a separate problem, and the provision of an adequate geriatrics unit in each mental hospital.

Weber, Plunkett and MacCurdy(9) study the problem of control of tuberculosis in mental hospitals. In 68,743 x-rays, they found 4.7% to have clinically significant tuberculous infection, and conclude that mental hospitals make up one of the major reservoirs. They report a death rate in the New York state hospitals of 593.6 per 100,000 as against a general tuberculosis death rate for the state at large of 46.8.

These are but a few of the interesting articles in this field; many other topics are found, such as psychiatric nursing and social work, training of personnel, and psychiatry in general hospitals. Several articles of psychiatric interest have appeared in journals especially designed for the general hospital administrator.

The Maudsley Lecture, given this year by Sir Laurence Broch(10), recently chairman of the Board of Control, deals with "Psychiatry and the Public Service." Finally, everyone interested in the long range aspects of psychiatric planning should be familiar with C. P. Blacker's highly significant and stimulating volume recently published in England entitled "Neurosis and the Mental Health Services."

### BIBLIOGRAPHY

1. *Am. J. Psychiat.*, 103:1-17.
2. *Am. J. Psychiat.*, 102:723-734.
3. *Bull. U. S. Army Med. Dept.*, 6:160-166.

4. Bull. Menninger Clin., 10:33-46.
5. Am. J. Psychiat., 102:351-361.
6. Am. J. Ment. Def., 50:326-329.
7. Am. J. Psychiat., 102:289-293.
8. Ment. Hyg., 30:431-450.
9. Am. J. Ment. Def., 50:383-387.
10. J. Ment. Sci., 92:287-304.

#### FORENSIC PSYCHIATRY

Perhaps of primary interest is the continuation in its second series of the University of Illinois National Symposium on Scientific Proof and Relations of Law and Medicine, under the editorship of Professor Hubert Winston Smith. Several of the articles published in this series in 1946 are of special interest to neurologists and psychiatrists, viz. Keschner's(1) on Simulation of Nervous and Mental Disease, Kennedy and Denker's(2) on Medico-legal Aspects of Spinal Cord Injuries, and Overholser and Weihofen's(3) on Commitment of the Mentally Ill.

In the field of causation, Abrahamsen(4) discusses motivation, pointing out the fact that the rôle of the unconscious, despite its importance, is ignored by the law and the public; a change in attitude is called for. Bromberg and Rodgers(5) studying 8,280 naval personnel convicted by courts martial, found only 40 to be users of marihuana, and conclude that there is no positive relationship between aggressive crime and use of the drug either in the Navy or in civilian life (as shown by the history of the offenders).

A note in the *Psychiatric Quarterly*(6) presents the important fact that an institute of forensic medicine is a part of the plans for the expansion of Bellevue Hospital and New York University Medical School; the need of formal training in this field is self-evident.

S. H. Kaufman and Judge Bok(7) present from practical experience the value of formal psychiatric examinations in the criminal court; and Colonel Lipscomb(8) discusses the problem of mental accountability under military law. The Army Technical Bulletin on this topic is printed in full in the Journal (9).

Bychowski and Curran(10) present a forceful and comprehensive study of current problems in medico-legal testimony.

Dr. W. Norwood East, the dean of English forensic psychiatrists, considers at length the problems of crime and punishment as a psychiatrist views them(11).

An interesting departure for a legal periodical is the presentation by Coon(12) of the principal psychoses with their legal possibilities.

The legislative mills turned out a relatively small grist, probably since a good many were not sitting.

Alabama (c. 468 of 1945) progressed half way on the road to modernity by cutting the number of jurors required for a "lunacy" hearing from twelve to six.

Maine (c. 63 of 1946) defines a mental defective under 17 as one having a mental age not greater than three-fourths of the subject's life age or under three years.

Maryland (c. 387 of 1945) permits the committed patient to demand a court hearing for discharge, either with or without jury; probably not an improvement in administration!

Michigan made decided progress by establishing a department of mental health (c. 271 of 1945) and by substituting the term "mentally diseased" for "insane" in its commitment law (c. 301 of 1945).

Utah (c. 130 of 1945) extended the sterilization law to include non-committed persons found to be mentally ill, mentally defective, or epileptic.

#### BIBLIOGRAPHY

1. J. Nerv. Ment. Dis., 103:571-611.
2. J. Nerv. Ment. Dis., 103:667-687.
3. Am. J. Psychiat., 102:758-769.
4. J. Nerv. Ment. Dis., 103:549-570.
5. Am. J. Psychiat., 102:825-827.
6. Psychiat. Qtly., 19:725.
7. J. Nerv. Ment. Dis., 103:289-297.
8. Am. J. Psychiat., 102:619-628.
9. Am. J. Psychiat., 102:445-453.
10. J. Crim. Law, 37:16-36.
11. J. Ment. Sci., 92:682-712.
12. Cornell Law J., 31:327-362.

#### MILITARY PSYCHIATRY

During the year just past, many medical officers who were engaged in psychiatric work in the services have returned to civilian life and have had somewhat more time in which to digest and present their experiences. New

civilian problems relating to the veteran, too, have arisen. As a consequence, the bibliography continues large; the articles are approximately as numerous as in 1945. Space permits mention of only a few out of a variegated and rich literature.

Newell and Lidz(1) discuss the toxicity of atabrine; although they saw only 2 cases of psychosis per 1000 using atabrine, they stress the importance of awareness of this possibility.

Aita and Kerman(2), Bailey(3), and Brehaut(4) present the symptomatology of closed head injuries due to blast.

Coleman(5) presents the importance of the positive and preventive possibilities of the group factor in military life. Davis(6) discusses the disorganization of behavior in fatigue.

Much space is devoted to the various forms of therapy in various groups and circumstances. Goldfarb and Kiene(7) recount their experiences with the shock therapies in the ETO; they found a high rate of remission with ECT particularly, and emphasize the different course followed by psychoses in the military as compared with the civilian. Group therapy is discussed by Klopfer(8) and Pearson(9). Erb and Bond(10) deal with sodium amytal narcosis in emotional disorders of combat flyers. Grinker(11) considers the psychological predisposition to the development of combat fatigue, while Chodoff(12) and Sturdevant(13) report on the combat-induced anxiety state as seen after return to duty. Rothschild(14) gives a review of neurological and psychiatric cases in the southwest Pacific area.

Numerous special groups and types of problems are treated. Will(15) and Gardner(16) consider the Naval prisoner and the rôle of the psychiatrist in his care. Katz(17) describes the neuropathologic manifestations found in a Japanese prison camp. Kepecs(18) discusses psychiatric disorders in Puerto Rican troops, and McHarg(19) presents a consideration of the mental health of submariners.

Hutt(20) and Wittson(21) and others report on phases of the contribution of the clinical psychologist.

Harwood(22) reports on returned fliers with neurosis, and finds that nearly one-half of the group studied improved materially within one month without psychotherapy. Eisendorfer and Lewis(23) discuss the internal and external causes of anxiety in returning veterans.

Not to omit the ladies, Preston(24) outlines the function of a mental hygiene unit in a WAC training center.

Morale in battle is discussed by a master—Field Marshal Lord Montgomery(25). "The morale of the soldier," he says, "is the most important single factor in war."

A general review of combat exhaustion is given by Bartemeier(26) and other prominent civilian psychiatrists as a report of a Special Commission.

Finally, to draw conclusions of civilian import, McNeel(27) discusses war psychiatry in retrospect, and General Menninger(28) presents in his Gregory Lecture the lessons from military psychiatry for civilian psychiatry.

#### BIBLIOGRAPHY

1. Am. J. Psychiat., 102:805-818.
2. J. Nerv. Ment. Dis., 104:390-406.
3. Arch. Neur. Psychiat., 55:551-553.
4. Rev. Corps San. Mil. (Paris), 1:21-29.
5. Am. J. Orthops., 16:222-226.
6. J. Neur. Psychiat. (London), 9:23-29.
7. Am. J. Psychiat., 102:602-608.
8. Rorschach Res. Ex., 9:207-209.
9. Arch. Neur. Psychiat., 55:553.
10. War Med., 8:146-152.
11. Am. J. Orthops., 16:191-214.
12. J. Nerv. Ment. Dis., 102:590-600.
13. Am. J. Psychiat., 103:55-59.
14. Am. J. Psychiat., 102:454-460.
15. U. S. N. Med. Bull., 46:680-689.
16. U. S. N. Med. Bull., 46:1368-1376.
17. J. Nerv. Ment. Dis., 103:456-465.
18. War Med., 8:244-249.
19. J. Ment. Sci., 92:343-356.
20. Bull. Mil. Clin. Psychol., 1:6-12.
21. J. Abnorm. & Soc. Psychol., 41:79-82.
22. Am. J. Psychiat., 102:641-646.
23. J. Nerv. Ment. Dis., 103:137-143.
24. Ment. Hyg., 30:368-380.
25. Brit. Med. J., No. 4479, Nov. 9, 1946, 702-704.
26. J. Nerv. Ment. Dis., 104:358-369, 489-525.
27. Am. J. Psychiat., 102:500-507.
28. Ment. Hyg., 30:571-589.

## PSYCHIATRIC EDUCATION

CHARLES A. RYMER, M.D., DENVER, COLO.

The literature on psychiatric education during the year 1946 can be summarized under three headings:

1. The symposium, "Preparation of Psychiatrists for Practice, Teaching and Research," presented at the 1946 meetings of the American Orthopsychiatric Association. Papers were read by Whitehorn(21), Lamar(9), Rado(15), Lewin(10), Allen(2), Alexander(1), Greenacre(7), Lowry(12), and Krugman(8), and all were published in the July issue of the *American Journal of Orthopsychiatry*.

2. The symposium, "Psychiatry in Medical Education," presented at the 1946 meetings of The American Psychiatric Association. Papers were read by Whitehorn(22), Lewis(11), Porter and Davidson(13), Rennie(16), and Appel, Strecker and Ebaugh(3). These papers, save Appel, *et al.*, have been published in the *AMERICAN JOURNAL OF PSYCHIATRY*.

3. Reports on graduate and postgraduate courses in psychiatry offered by the Army(4), Veterans' Administration(14), Menninger Foundation(6), and University of Minnesota(20).

Let us consider each of these briefly:

1. Whitehorn(21) defines the core of psychiatry as a therapeutic art in which a physician attempts to help a sick person who is emotionally disturbed or unreasonable. He feels that psychiatry has cultivated certain skills in the use of a variety of therapeutic instrumentalities and, to a limited extent, even principles of preventive psychiatry. Further, it has developed a special basic psychodynamic science of its own. Whitehorn points out, as does Rado(15), that psychoanalysis is the essence of psychodynamic science; he also indicates that there are other workers of high prestige and comparable distinction who adhere to special psychobiological formulations as the foundation of psychodynamics.

Whitehorn feels that collaborative contact with internal medicine and physiology will greatly improve the individual psychiatrist and strengthen the profession as a whole. Looking to the future, it behooves us to

avoid undue dogmatism and rigidity in our training programs and to encourage constructive questioning.

Lamar(9) suggests that training programs be revised in the light of searching inquiry as to what is sound, efficient, self-critical, dynamic and logical; that training centers be established in our medical colleges and associated hospitals, given generous support and made inviting to our best teachers; and that psychiatry be made attractive to the highest quality of medical students and young physicians.

Lamar believes that training for all psychiatrists should include three years in institutes, hospitals, clinics, dispensaries, laboratories and other institutions recognized (by constituted boards) as competent to provide satisfactory training in general psychiatry. Subject matter should include a general familiarity with neurological theory and methods of examination; a good working knowledge of psychobiology, psychopathology and clinical psychiatry; as well as of other medical sciences deemed necessary to the understanding and treatment of psychiatric disorders. When all of this is coupled with two years' additional experience in some area of psychiatric occupation, it is considered that the candidate is prepared to submit himself to a qualifying examination.

To this, Rado(15) adds that physicians who plan to specialize in psychiatry should complete a course of graduate training. This training would begin immediately after the internship and would require about three years of full-time work emphasizing the study of psychodynamics. A basic course in the detailed psychodynamics of healthy, neurotic and psychotic behavior should be followed by a course in the psychoanalytic techniques of investigation and treatment, including the reconstructive and briefer methods. Rado holds that the past separation of psychoanalysis from psychiatry was artificial and harmful to both; the sooner this unnatural condition disappears the better. Preliminary to the study of psychodynamics is a personal preparation by each student; he must first undergo a personal psycho-

analysis. If this requirement is unique, so is psychodynamics as a science. This indispensable personal therapeutic analysis is necessary so that the candidate may arrive at a more realistic appraisal of himself as a product of a given time and culture.

Lewin(10) outlines the fundamentals of psychoanalytic training agreed upon by the various institutes of psychoanalysis: (1) the personal analysis of the student; (2) supervised work under experienced teachers; (3) clinical case seminars; (4) lecture courses.

Although there is satisfactory unanimity on basic principles of training, there are a number of problems which confront the analytic training institutes. Chief among these are the large number of students wishing analytic training and the advanced age of the analyst upon his graduation from the institute courses. While a great many students apply for training, many are refused because they do not meet the rigorous admission standards. However, there is not enough room in the various psychoanalytical institutes to train even all of those applicants who are qualified. Regarding the advanced age of the analyst at graduation, it has been suggested that analysts be trained while they are undergraduates or during their intern years. Another suggestion is that special analytic schools be established, analogous to dental schools, to provide analytical training sooner than is now possible. Lewin feels it unlikely that either of these suggestions will be followed, and he believes that analytic training will continue to be predominately postgraduate, lengthy, extremely specialized, and expensive.

Allen(2) takes exception to the statement that a personal analysis is obligatory for those who enter the field of psychiatry. In his opinion, the establishment of this requirement would undermine and eventually destroy the fine rapport which is the result of spontaneous choice. In the end, both psychoanalysis and the student would suffer by this obligatory factor. A personal analysis, as part of professional development, should remain optional, and not fall into the category of being required in order to obtain professional status.

Alexander(1) states that the first prerequisite of sound teaching in any field is

the clarification of fundamental principles and concepts. He notes that the psychosomatic approach, although as old as medicine itself, has developed only very recently from being merely "bedside manner" and medical art into a methodology which is based on controlled observations and scientific concepts. He believes that the term psychosomatics should be limited to the study of the psychological components in organic diseases and to the therapy which attempts to influence this psychological component. The organic treatment requires, as it always has, a thorough knowledge of the existing medical specialties; the psychotherapeutic approach requires a thorough knowledge of psychiatry. Cooperation of psychiatrists with the different medical specialists will remain the only sound approach. While psychiatric concepts need to become an integral part of the training of every physician, psychotherapy itself will remain a specialty requiring as specific and thorough training as surgery.

2. In the symposium on Psychiatry in Medical Education, Whitehorn(22) states that the psychiatrist should develop in medical students those psychiatric concepts and attitudes which are basic to medical science and practice, that he should be able to lead in the scientific advancement in his field through research and the guidance of research, and that he should direct the graduate training of specialists. The ideal teacher should have a thorough understanding of the broad range of the practice of psychiatry and he should have a mastery of a number of professional and social skills. Whitehorn believes that teachers of psychiatry should be chosen primarily for their capacity to lead in the development of a psychiatric science basic to medicine, rather than as mere instructors of current formulations. Psychiatry is becoming increasingly a science of psychodynamics, rather than one chiefly preoccupied with psychopathological phenomena.

Greenacre(7) believes that the primary requirement for the training of psychiatric teachers should be first hand experience in both extramural and intramural methods of treatment; the teacher of psychiatry must bridge the gap between institutional and extramural psychiatry. She insists on the

natural union of practice and teaching by the development of psychiatric divisions in general hospitals so that the care of the mentally ill becomes integrated in all general medical programs. . . . The training for teaching might include considerable extramural clinical experience, rather than hospital and research training only, as is so often the case."

After a lengthy outline on the nature of the material to be given the medical student, Lewis(11) suggests that teaching could be improved by spending more time in the method of psychiatric examination, demonstration of more subclinical cases, better use of psychiatric publications, more emphasis on the sociological aspect of psychiatry and the principles of mental hygiene, and greater utilization of visual aids. Lewis believes that the student of medicine should be taught two fundamental principles: (1) The concept of man as a reacting entity, as a living being in action, and that therefore mental disorders have a "natural history"; (2) Psychiatry is a part of medicine in general and psychosomatic problems will confront the physician regardless of his type of practice. After four years in medical school, the student should be sufficiently informed in psychiatry to: (1) Recognize the usual manifestations of mental disorders and the common emotional components of physically ill patients; (2) Undertake the practical handling of these patients and decide which patients he may treat, which patients need a consultant, and which patients should be referred to a psychiatrist; (3) Do what is necessary to protect the patient, the patient's family, and the interests of society. The rest of psychiatric training may be undertaken as a specialty in postgraduate work.

Porter and Davidson(13) report on a questionnaire sent 412 medical officers graduated from 69 approved medical schools on their undergraduate courses in psychiatry. Responses were received from 162 of the officers; 150 of these offered adverse criticisms. Their criticisms centered around under-emphasis on treatment, impractical treatment methods, too little attention to psychoneurotic and minor cases, and lack of opportunity to see what time or treatment did for the patients. Moreover, they felt that nothing was taught to prepare them to

meet the psychiatric problems seen in a general practitioner's office. The constructive criticisms offered by this questionnaire should be of value in improving the teaching of psychiatry.

3. The Army(4) has embarked upon a program of psychiatric teaching as outlined in SGO Circular Letter 44, 1946. Training centers already designated for three year residencies are Brooke Army Medical Center, Walter Reed, Letterman, and Fitzsimons General Hospital. One year or more of training is possible at Oliver General, Madigan, Beaumont and Percy Jones General Hospitals. The course outlined in the circular is orthodox, and, if adequate personnel is available, the training should be satisfactory.

Powdermaker(14) reports that as of November 1946, the Veterans' Administration had 24 residency training centers with 33 medical schools participating. In addition, 300 psychiatric residents are at work in 30 Veterans' Administration hospitals and clinics. Programs are being developed in 6 additional medical schools, 6 Veterans' Administration hospitals and 9 mental hygiene clinics. The curriculum, teaching, and the selection of residents are the responsibility of the teaching agency selected by the Veterans' Administration. The programs show the revolution that has been going on in recent years in graduate psychiatric education. Emphasis is being placed upon the dynamic approach; the importance of basic psychological, as well as somatic concepts; teaching by conference and seminar methods, original investigation and methods of research. A wide interest in psychoanalysis has been established under the auspices of the Menninger Foundation(6). This program emphasizes the change from intramural to extramural psychiatry and a new orientation to outpatient therapy. The Foundation has the advantage of giving the student inpatient and outpatient experience while keeping him under the guidance of a central school. His instruction is planned and correlated with his progression from one psychiatric service to another. The training should be broad, systematized and standardized, and should include both didactic instruction and supervised clinical work.

The treatise by Smith(20) and the paper

by Rennie(16) report upon the experimental two week's postgraduate course, "Psychotherapy in general Practice," given for 25 physicians at the center for continuation study of the University of Minnesota. This pilot course for general practitioners was the outgrowth of a recommendation made at the Hershey Conference. The questions to be answered by the course were: "Can doctors be taught to practice in their own offices the kind of medicine psychoneurotic patients need? Can they learn to use in all their practice the gist of what modern psychiatry has to say about human personality and the way it works? Can they get some idea of what comprehensive medicine means?" The teaching faculty, made up of an impressive group of young psychiatrists, felt that psychiatry had something that could and must be shared with general medicine and that there was an urgent need of collaboration with general medicine in the care of the psychoneurosis.

The results of the course were generally satisfactory and even outstanding in some respects; appreciation of the importance of emotional factors in medical practice was probably the greatest single gain.

It is encouraging to note the present widespread activity in psychiatric education at all levels, particularly at the postgraduate level. This is in sharp contrast to conditions noted in previous reports (5, 17, 18, 19), in which during the war years there was a sharp reduction in undergraduate and graduate teaching personnel, restriction of curricular hours, and curtailment of residency training. As a result of the war, attention has been focused upon the need for intensive psychiatric training of medical students, general practitioners, and specialists in psychiatry. This is the responsibility of the entire medical faculty and not alone of the psychiatric department. Moreover, psychiatric education is no longer the province of a few favored schools and of a few leaders, but the obligation of all psychiatric faculties and educators.

#### BIBLIOGRAPHY

1. Alexander, Franz. Training principles in psychosomatic medicine. *Am. J. Orthopsychiat.*, 16: 410-412, July 1946.
2. Allen, Frederick H. Training in child psychiatry. *Am. J. Orthopsychiat.*, 16:430-439, July 1946.
3. Appel, Kenneth E., Strecker, Edward A., Ebaugh, Franklin G. Tension as a common denominator in psychiatric conditions. Read at the annual meeting of The American Psychiatric Association, Chicago, Ill., May 27-30, 1946.
4. Caldwell, John M. Personal communication.
5. Ebaugh, Franklin G., and Rymer, Charles A. Present status of psychiatric teaching. *Am. J. Psychiat.*, 99:610-614, Jan. 1943.
6. Education Committee of the Menninger Foundation. The Menninger Foundation School of Psychiatry. *Bull. Menninger Clin.*, 10:1-9, Jan. 1946.
7. Greenacre, Phyllis. Training for teaching psychiatry. *Am. J. Orthopsychiat.*, 16:413-417, July 1946.
8. Krugman, Morris. The psychologist's contribution to the training of the psychiatrist. *Am. J. Orthopsychiat.*, 16:440-444, July 1946.
9. Lamar, Norville C. Presidential address. *Am. J. Orthopsychiat.*, 16:392-399, July 1946.
10. Lewin, Bertram D. Training in psychoanalysis. *Am. J. Orthopsychiat.*, 16:427-429, July 1946.
11. Lewis, Nolan D. C. What should be taught? To be published in *Am. J. Psychiat.*
12. Lowrey, Lawson G. Training principles in the use of social service. *Am. J. Orthopsychiat.*, 16:418-426, July 1946.
13. Porter, William C., and Davidson, Harry A. Alumni appraisal of psychiatric education. To be published in *Am. J. Psychiat.*
14. Powdermaker, Florence. The Veterans Administration psychiatric educational program. Personal communication.
15. Rado, Sandor. Psychodynamics as a basic science. *Am. J. Orthopsychiat.*, 16:405-409, July 1946.
16. Rennie, Thomas A. C. Psychotherapy for the general practitioner program for training. To be published in *Am. J. Psychiat.*
17. Rymer, Charles A. Review of psychiatric progress 1943: Psychiatric education. *Am. J. Psychiat.*, 100:561-565, Jan. 1944.
18. Rymer, Charles A. Review of psychiatric progress 1944: Psychiatric education. *Am. J. Psychiat.*, 101:545-549, Jan. 1945.
19. Rymer, Charles A. Review of psychiatric progress 1945: Psychiatric education. *Am. J. Psychiat.*, 102:548-551, Jan. 1946.
20. Smith, Geddes. Psychotherapy in general medicine: Report of an experimental postgraduate course. The Commonwealth Fund. 1946.
21. Whitehorn, John C. Psychiatry of today and future expectations. *Am. J. Orthopsychiat.*, 16:400-404, July 1946.
22. Whitehorn, John C. Psychiatry in medical education: The teacher's characteristics and qualifications. To be published in *Am. J. Psychiat.*

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## AWARDS AND CITATIONS

The following is the last list of awards and citations received from the Office of the Surgeon General, Washington, D. C.

MAJOR RALPH W. BARRIS, Medical Corps. ARMY COMMENDATION RIBBON. "For rendering meritorious service from 24 September 1944 to 11 April 1946, as Chief of Neurology and Neurosyphilis Center, Ashford General Hospital, White Sulphur Springs, West Virginia, Major Barris rendered valuable contributions to the Medical Service, reflecting great credit to his profession and commendation to himself."

LT. COL. WALTER E. BARTON. LEGION OF MERIT. "Lt. Col. Walter E. Barton served in various assignments in the office of the Surgeon General, Washington, from April 1943 to June 1945. Combining rare qualities of technical knowledge and experience with a high sense of professional responsibility, he was largely responsible for the organization and early development of the Reconditioning program for convalescent Army patients. His specific services in shaping the doctrine and policy of the four inter-related services of occupational therapy, rehabilitation of the war blind and deafened, general reconditioning and reconditioning of neuropsychiatric patients, were instrumental in furthering the standard of professional medical care and reflect the highest credit upon himself and the Army Medical Corps."

COLONEL JOHN M. CALDWELL, JR., Medical Corps. ARMY COMMENDATION RIBBON. "For meritorious service in Japan from 2 September 1945 to 28 February 1946. As Commanding Officer of the 54th General Hospital and of the 27th General Hospital, Colonel Caldwell contributed immeasurably to the successful maintenance of efficient medical administration in Hollandia, New Guinea, and Japan. His commendable establishment of immediate and effective hospital facilities during numerous moves, the success attained in neuropsychiatric service, and his initiative and foresight constituted an exemplary demonstration of leadership. The admirable performance of Colonel Caldwell added greatly to the modern facilities and protective measures offered the troops of the occupation forces in Japan."

OLEINICK P. CONSTANTINE. SELECTIVE SERVICE MEDAL. "In appreciation of your loyal and faithful adherence to duty given voluntarily and without compensation to the impartial administration of the Selective Service System, the Government of these United States expresses its gratitude in this public recognition of your patriotic services."

LT. COL. JOHN M. COTTON, Medical Corps, AUS. LEGION OF MERIT. "From July 1944 to October 1945, conceived, organized and commanded the Neuropsychiatric Treatment Branch, Welch Convalescent Hospital, Daytona Beach, Florida. He devised training programs for duty personnel and

operational methods that became models for similar Army Service Forces installations. His services were rendered with an unselfish devotion to the welfare of his patients."

LT. COL. ARNOLD EISENDORFER, Medical Corps. ARMY COMMENDATION RIBBON. "For meritorious service and devotion to duty as neuropsychiatrist and Chief Neuropsychiatrist, Headquarters, ASFTC, Fort Lewis, Washington, from 1 July 1944 to 11 January 1946. His skillful handling, through utilization of outstanding professional ability, of large numbers of psychoneurotic soldiers resulted in the readjustment and return to duty status of a high percentage of all persons processed, contributing materially to the welfare and record of the command."

MAJOR ARNOLD EISENDORFER, Medical Corps. ARMY COMMENDATION RIBBON (Oak Leaf Cluster). "For meritorious service as Chief, Consultation Service and Chief Neuropsychiatrist, Camp Abbot, Oregon, from 15 May 1943 to 4 June 1944. At a time when the Consultation Service was an innovation and its developments in many respects novel and untried, Major Eisendorfer, through his outstanding professional ability, leadership, ingenuity and untiring energy, organized and operated the neuropsychiatric consultation service and mental hygiene program so successfully that it became a model for other services, and contributed materially to the effective utilization of manpower in the Army."

MAJOR HARRY L. FREEDMAN. ARMY COMMENDATION RIBBON. "Major Freedman, as Director, Mental Hygiene Unit, Headquarters, Eastern Signal Corps Unit Training Center, Fort Monmouth, New Jersey, from 22 December 1941 to 22 November 1943, capably discharged important responsibilities in the organization and operation of a psychiatric unit for the reclassification and elimination of maladjusted soldiers."

MAJOR HARRY L. FREEDMAN, Medical Corps. CONSPICUOUS SERVICE CROSS, presented by His Excellency, The Governor of the State of New York. "On behalf of the Representatives in the Legislature of the State of New York, for exceptionally meritorious conduct in the performance of outstanding services for his country in the field of military mental hygiene and psychiatry during the war."

1ST LT. MAX L. HUTT, M. A. C. ARMY COMMENDATION RIBBON. "During World War II, the Medical Department carried out its mission with outstanding success. This achievement was made possible only through the combined efforts of all Medical Department personnel. Your service with the Medical Department has been exceptional when

compared with others of the same grade of similar position, and I wish to commend you for your outstanding contribution as Chief of the Psychology Branch of the Neuropsychiatry Consultants Division, Office of the Surgeon General, from 13 February 1946 to 14 June 1946."

MAJOR JORDAN A. KELLING, Medical Corps. ARMY COMMENDATION RIBBON. "For performance of meritorious service while serving as Psychiatrist, Special Training Unit, War Department Personnel Center, Camp Shelby, Miss., from June 1943 to November 1945. Through his skill, knowledge, good judgment and unselfish devotion to duty, Major Kelling contributed substantially to the successful accomplishment of the military mission of this Post."

CAPTAIN ROBERT C. LONGAN, JR. ARMY COMMENDATION RIBBON. "During World War II the Medical Department carried out its mission with outstanding success. This achievement was made possible only through the combined efforts of all Medical Department personnel. Your service with the Medical Department has been exceptional when compared with others of the same grade of similar position, and I wish to commend you for your outstanding contribution as Chief, Psychiatry Branch, and as Assistant Chief, Neuropsychiatry Consultants Division, Office of The Surgeon General, from 23 December 1945 to 31 October 1946."

BRIG. GENERAL WILLIAM C. MENNINGER. ARMY COMMENDATION RIBBON. "During World War II the Medical Department carried out its mission with outstanding success. This achievement was made possible only through the combined efforts of all Medical Department personnel. Your service with the Medical Department has been exceptional when compared with others of the same grade of similar position and I wish to commend you for your outstanding contribution as Chief Consultant in Neuropsychiatry to The Surgeon General and Director of the Neuropsychiatry Consultants Division, Office of The Surgeon General, from 20 November 1945 to 28 June 1946."

COLONEL JOHN M. MURRAY, Medical Corps, AUS. LEGION OF MERIT. "As Chief of the Psychiatric Branch, Office of the Air Surgeon, during the period from January 1943 to October 1944, Colonel Murray displayed extraordinary foresight and professional skill in successfully completing the organization of psychiatric service of the Army Air Forces. His outstanding achievement of the establishment of schools for the indoctrination of medical officers in modern psychiatric methods reflects great credit upon himself and the military service."

MAJOR BENEDICT NAGLER, Medical Corps. ARMY COMMENDATION RIBBON. "Major Benedict Nagler, M. C., is hereby authorized to wear the Army Commendation Ribbon by direction of the Secretary of War.

"During World War II the Medical Department carried out its mission with outstanding success. This achievement was made possible only through the combined efforts of all Medical Department personnel. Your service with the Medical Depart-

ment has been exceptional when compared with others of the same grade of similar positions, and I wish to commend you for your outstanding contribution as Assistant Chief and later as Chief of the Neuropsychiatric Section, Cushing General Hospital, Framingham, Massachusetts, from 25 October 1943 to 27 March 1946."

COLONEL CLEVE C. ODOM, Medical Corps. LEGION OF MERIT. "Colonel Cleve C. Odom, Medical Corps, Army of the United States, while serving as commanding officer of Mason General Hospital, distinguished himself through outstanding service. Colonel Odom expanded Mason General Hospital from a 1,320 to a 3,032 bed hospital during his tenure of command and provided instruction of the highest quality for medical officers and nurses undergoing instruction in the School of Military Neuropsychiatry operated at this station. Through his broad experience in neuropsychiatry and hospital administration, untiring efforts, remarkable initiative and enthusiastic and virile leadership, Mason General Hospital attained a prominent place in military neuropsychiatry and administered the best of care and treatment to the neuropsychiatric patients of the Army. His cumulative achievements reflect great credit on himself and the medical corps."

LT. COLONEL SAMUEL PASTER. LEGION OF MERIT. "Lt. Col. Samuel Paster, M. C., AUS, as Chief, Neuropsychiatric Service, Kennedy General Hospital, Memphis, Tennessee, from December 1942 to December 1945, instituted methods of treatment which became a part of the established reconditioning program of the Army. His services were of immeasurable value to the mentally ill and were rendered with an unselfish devotion to their welfare."

LT. COL. HERBERT S. RIPLEY, JR., Medical Corps. CITATION FOR BRONZE STAR MEDAL. "For meritorious achievement in Biak, The Netherlands East Indies, from 15 October 1944 to 1 August 1945, in connection with military operations against the enemy. As chief of the neuropsychiatric section of a large general hospital, Lt. Colonel Ripley was responsible for the planning and organization of complete facilities for the care and treatment of psychotic cases. Despite difficult working conditions and an acute shortage of experienced personnel, he succeeded through unselfish and diligent labor in providing an efficient service during a period in which large numbers of patients were being received from the Philippine Island campaigns. He devoted additional time to the instruction and training of other medical officers, and supervised the establishment and operation of a convalescent and rehabilitation section which received high praise from ranking medical authorities. As a result of these capable efforts, many patients who ordinarily would have been evacuated to the United States were rehabilitated and returned to duty in the theater. By his superior professional ability, resourcefulness, and devotion to duty, Lt. Col. Ripley made a distinguished contribution to the care of battle casualties in the Southwest Pacific Area."

LT. COLONEL PERRY C. TALKINGTON, Medical Corps. BRONZE STAR MEDAL. "For meritorious service in connection with military operations against an enemy of the United States during the period 1 August 1944 to 8 May 1945. The superior manner in which Colonel Talkington performed his exacting duties as Neuropsychiatric Consultant, Medical Section, Headquarters Third U. S. Army,

distinguishes him as an outstanding officer. His professional skill and organizing ability were important contributions in forming and maintaining a vital Neuropsychiatric Center in the Third U. S. Army area. Colonel Talkington's many accomplishments; his sound judgment and loyal, untiring devotion to duty reflect great credit upon himself and the military service."

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#### NOTICE TO MEMBERS OF THE AMERICAN PSYCHIATRIC ASSOCIATION

In accordance with the provisions of Article VIII of the Constitution of the Association, and in accordance with the vote of Council, notification is hereby given that at the 1947 meeting the following amendments proposed by the Committee on Membership will be presented for vote:

Strike out Article III, Section V and insert the following in its place:

SECTION V. Members hereafter shall be chosen from physicians who have specialized in the practice of psychiatry for at least three years and after fulfilling the requirements of Associate Members. Members shall be recommended to Fellowship as it becomes apparent that they deserve this recognition.

Amend Article III, Section VI to read as follows:

SECTION VI. Associate Members shall be physicians who have had at least one year's practice in a mental hospital or its equivalent.

## COMMENT

### LETTER FROM FRANCE

The "Letter from France," appearing in this issue of the JOURNAL, is the response to a request addressed to Dr. René Charpentier, editor-in-chief of the *Annales Medico-psychologiques*, for an article reporting on psychiatric activities in France during recent years when communication between our French colleagues and their western brethren had been cut off.

It was suggested that such an article would be a welcome revival of a custom that prevailed when the *Annales* and the JOURNAL were both young, and when from time to time a "Letter from France" appeared in our pages to acquaint our readers with the particular interests and doings of our neighbors across the seas.

Dr. Charpentier replied most cordially, promising his friendly and full collaboration "in any way that may contribute to render more intimate the relations between American and French psychiatrists, and in particular between the excellent *American Journal of Psychiatry* and the *Annales Medico-psychologiques*."

Being unable to undertake the preparation of the article in question himself, Dr. Charpentier invited his collaborator Dr. Paul Cossa to do so and the latter generously consented. Dr. Cossa, former chief of the psychiatric clinic of the Faculty of Medicine of Paris and neurologist to the hospitals of Nice, is the author of a number of books on the anatomy and physiopathology of the nervous system and neurological and psychiatric therapies. He has been at considerable pains to prepare a review of some of the important accomplishments in psychiatry in France since the year 1939. It is an extraordinary record which bears testimony to the courage, resourcefulness and perseverance of our French colleagues in pursuing their accustomed scientific labors and producing results under conditions well-nigh intolerable.

We express our gratitude to Dr. Charpentier and to Dr. Cossa for the "Letter from France", which we hope will be the first of a new series that will revive an ancient and friendly custom.

### THE PSYCHIATRIC FOUNDATION

The Psychiatric Foundation has been established for the purpose of raising funds with which to carry out the objectives of The American Psychiatric Association. Initially approved by the parent organization, it is being founded in fact by the numerous letters and contributions from the members of our Association. At this time over nine hundred encouraging and inspiring letters and contributions totaling more than ten thousand dollars manifest the sincere determination of our members to begin turning the gears of psychiatry for the practical benefit of a great many people.

The first project which The Foundation is supporting is one which aims to assist the mental hospitals in the United States and Canada to bring about the necessary corrections and improvements. This is a project of our Association submitted by the Committee on Psychiatric Standards and Policies and approved by the Council for the inspection and rating of public and private mental hospitals. This project follows the pattern

of the one carried out by the American College of Surgeons. In addition to the funds which The Foundation will provide for this purpose, the project will require the patient assistance of every hospital superintendent in supplying the Committee with the information which it needs.

In its efforts to raise large sums of money to implement some of the carefully considered recommendations of the Standing Committees of our Association, The Foundation will naturally have to publicize existing conditions and explain the financial needs necessary to correct these conditions. In doing so, it may duplicate the educational efforts of existing organizations. Unfortunately this cannot be avoided. The principal purpose for creating The Foundation is to establish an organization for acquiring funds with which to assist psychiatry to become more effective for the general good.

LEO H. BARTEMEIER, M. D.,  
President,

The Psychiatric Foundation.

## NEWS AND NOTES

### COUNCIL MEETING, AMERICAN PSYCHIATRIC ASSOCIATION

The following transactions represent the high lights of the regular mid-winter meeting of The Council, which was held in New York City on December fourteenth and fifteenth:

The next annual meeting of the Association, which will be held at the Hotel Pennsylvania in New York City, will begin on Monday, May nineteenth and continue through Friday, May twenty-third.

The President, Doctor Samuel W. Hamilton, will give his address at the opening session.

The second day of the meeting will be devoted to a series of group discussions which are being arranged by the Committee on Reorganization. These sessions will be staggered in time and the topics to be discussed are The Duties of the Proposed Medical Adviser and His Office, Medical Education, Research, Public Education, Methods of Nominating Officers, Standards and Policies and The JOURNAL. Those participating in these discussions will prepare resolutions which will be discussed and acted upon at a general meeting of the membership on Thursday.

One afternoon of the annual meeting will be devoted to The Psychiatric Foundation.

Two evenings will be given over to round table discussions.

The annual meeting of the Association in 1948 will take place in Portland, Oregon.

The Council voted that the Nominating Committee be requested to submit separate nominations for the position of Secretary and Treasurer. No amendment of the Constitution will be necessary to effect this change.

The Association will publish a monthly News Bulletin which will be distributed to the members of the Association without charge for a period of one year. The preparation and the selection of material for the Bulletin will be under the supervision of an Editor and his Staff.

The Council approved the recommenda-

tion of the Committee on Standards and Policies that the Society create the machinery for the inspection and rating of both public and private mental hospitals. The Council approved the recommendation of the Committee that a "Form for Inspection" be sent to the superintendents of mental hospitals. The Council also filed a request with The Psychiatric Foundation for a grant of seventy thousand dollars beginning July 1, 1947 in order to implement the recommendation of the Committee on Standards and Policies.

LEO H. BARTEMEIER, M. D.,  
*Secretary-Treasurer.*

GROUP FOR THE ADVANCEMENT OF PSYCHIATRY.—About sixty-five members of The American Psychiatric Association met as a group at Rye, N. Y., on November 4-6, 1946, to discuss current problems in psychiatry. Nine committees were active, but the focus of the meeting was upon medical education. Under the chairmanship of Dr. T. A. C. Rennie, this committee plans to meet monthly in New York to continue work on recommendations for improving the content and methods of teaching psychiatry.

The committee on therapy, under Dr. Ralph Kaufman, completed recommendations concerning shock therapy which are being circulated for study and comment.

The chairman of the group, Dr. W. C. Menninger, announces that the next meeting will be held in the spring to work on problems concerning the state hospital patient, under the chairmanship of Dr. Kenneth E. Appel.

This meeting was made possible by the Commonwealth Fund.

THE MENNINGER FOUNDATION.—Applications are being received for 3 positions in the research department of The Menninger Foundation with opportunity afforded for clinical work and teaching. Minimum requirements are three years experience in psy-

chiatric practice or psychiatric research plus a completed training analysis; or five years psychiatric practice, plus a completed personal analysis. Further information may be obtained by writing to Dr. Merton M. Gill, Assistant Director, Research Department, The Menninger Foundation, Topeka, Kansas.

**MEDICO-LEGAL RELATIONS.**—No. 1 of Vol. 8 (July 1946) of the *Journal of Clinical Psychopathology* is devoted to the publication of eight papers from the second series of symposia on the relations of law and medicine, arranged by Dr. Hubert Winston Smith, professor of legal medicine, University of Illinois. Certain other papers in this series, as well as in the first series, have been published in the JOURNAL (Mch. and Sept., 1943; Mch. and May, 1946).

In addition to the valuable papers by distinguished contributors, this issue of the *Journal of Clinical Psychopathology* is noteworthy for the inclusion of a 30-page bibliography of publications of joint interest to the legal and medical professions prepared by Dr. Smith. This is a distinctly serviceable reference item.

**BUILDING AND IMPROVEMENTS, N. Y. STATE HOSPITALS.**—The New York State Postwar Public Works Planning Commission has announced the approval of several new projects for expansion and improvements in the state hospital service. These projects cover new construction and improved facilities at Kings Park State Hospital, Marcy State Hospital, Central Islip State Hospital, Hudson River State Hospital and Letchworth Village, and will involve the expenditure of \$5,763,500.

With these new developments, the Commission to date has planned for 114 projects for new construction, repair, remodeling, etc., in the New York state hospital system at an estimated cost of \$92,842,541.

**AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY EXAMINATIONS.**—The tentative dates and location of the next examination for certification in neurology and psychiatry are May 15, 16, 17, 1947, in Philadelphia, Pennsylvania. Applications should be in the

hands of the secretary 90 days before the examination is scheduled. The last possible date for filing is March 1, 1947.

**OPENING FOR PSYCHIATRIST IN BOYS' VOCATIONAL SCHOOL.**—A full-time residency is to be filled in the Boys' Vocational School at Lansing, Michigan. This school accommodates 350 maladjusted boys. The appointee will be director of the clinic and have charge of the staff consisting of physician, psychologists, social workers and nurses. The position carries an annual salary of \$6780 and retirement benefits.

Enquiries may be addressed to Francis P. Kelly, Esq., Chief Transactions Division, Michigan Civil Service Commission, Unit 4, Lansing, Michigan.

**DR. LEVINE APPOINTED AT UNIVERSITY OF CINCINNATI.**—Dr. Maurice Levine has been appointed professor of psychiatry at the University of Cincinnati Medical College to succeed Dr. John Romano who resigned to accept a similar position at the University of Rochester.

Dr. Levine, a graduate of the University of Cincinnati, will direct the psychiatric service at the General Hospital, the Central Clinic of the Community Chest, and will have charge of the projected Psychiatric Institute at the Jewish Hospital.

**VETERANS ADMINISTRATION TRAINING COURSES.**—Two additional residency training programs for Veterans Administration physicians in neurology have been organized. The residencies, which will vary from one to three years, according to a doctor's previous experience, are designed to prepare residents for certification in neurology by the American Board of Psychiatry and Neurology.

One training program will be conducted under the joint auspices of Boston University, Tufts Medical College and Harvard University. Residents will be stationed at the Veterans Administration Hospital at Framingham, Massachusetts (formerly the Army's Cushing General Hospital). Applications should be sent to Dr. Harry C. Solomon, Chairman, Deans Subcommittee for Neuropsychiatry, Harvard University Medical School, Boston, Massachusetts.

The other program will be conducted at Jefferson University Medical College and Clinic, Philadelphia, Pennsylvania, under the auspices of the Veterans Administration Philadelphia Deans Committee, and directed by Dr. Bernard J. Alpers, professor of neurology, Jefferson Medical College. Applications should be sent to Dr. Edward A. Strecker, Chairman, Deans Subcommittee for Neuropsychiatry, University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania.

**AMERICAN SOCIETY OF ELECTROENCEPHALOGRAPHY.**—In June, 1946, at the request of the Eastern Association of Electroencephalographers, the American Physiological Society appointed Dr. Herbert Jasper and Dr. Frederick A. Gibbs; the American Neurological Association, Dr. Robert Aird, and Dr. Charles Aring; The American Psychiatric Association, Dr. Charles Stephenson and Dr. Robert S. Schwab, and the American

Medical Association, Dr. E. J. Baldes, to form a Council of seven members for the purpose of organizing a national society of electroencephalography. The purpose of this national society was to supervise and raise the standards of laboratories, workers and publications in this field.

In December, 1946, this Council of seven members met in Boston and formed the American Society of Electroencephalography, the officers consisting of President, Dr. Jasper; Vice-President, Dr. Gibbs; Secretary, Dr. Schwab, and Treasurer, Dr. Mary A. B. Brazier.

Workers are invited to consult the Society regarding their research projects and manuscripts may be submitted for critical evaluation.

Enquiries may be sent to Dr. Robt. S. Schwab, Secretary American Society of Electroencephalography, Massachusetts General Hospital, Boston, 14, Mass.

#### PSYCHIATRIC PLACEMENT SERVICE TO BE CONTINUED

In the summer of 1945 it became increasingly evident that physicians in the armed forces who were interested in obtaining further training in psychiatry and in finding positions in this field upon their return to civilian life, would require advice and assistance. In order to meet this emergency, The American Psychiatric Association and The National Committee for Mental Hygiene joined forces and set up a Psychiatric Personnel Placement Service, which began operating on December 11, 1945, under the guidance of an advisory committee, composed of representatives of the two organizations.

During the past year a great deal has been accomplished. Nation-wide surveys of general and state hospitals, of private mental hospitals, of community and mental hygiene clinics, of medical schools, and of foundations have been conducted, in order that there might be a complete file of the positions and training opportunities available in psychiatry. Several hundred physicians have been interviewed personally in the office, and their careers in psychiatry have been planned and mapped out for them. The director of the Placement Service made several field trips to various parts of the country, during which he discussed the personnel situation with prospective employees. Many physicians have been placed in training and in attractive positions. The problems confronting psychiatry have been pointed out at important medical meetings and conferences.

Up to and including December 10, 1946, which is the date of completion of the year's undertaking, over 900 physicians had registered with the Placement Service, either by letter or by personal interview. During the last few months the number of new applications received has been dwindling, and the requests for assistance diminishing. All physicians who indicated that they would be released from the army or the navy up to January 1, 1947, have been referred to positions or have been given advice concerning training. It is felt, therefore, that the emergency placement program has been completed. It is the opinion of the advisory committee that it is important to have a central place where data relative to training and positions in psychiatry can be obtained by interested physicians. The activities of the Psychiatric Personnel Placement Service will be continued by The National

Committee for Mental Hygiene at 1790 Broadway, New York 19, N. Y., and applications from physicians seeking placement in positions or in training in the field of psychiatry are still invited.

Dr. Forrest M. Harrison, who has directed the Placement Service for the past year, has accepted the position of assistant superintendent of the Delaware State Hospital, Farnhurst, Delaware, and assumed his duties there on November 20, 1946.

CERTIFIED BY THE AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY,  
INC., NEW YORK CITY, DECEMBER 16, 17, 18, 1946

PSYCHIATRY  
(By Examination)

- \*Alden, John, 490 Post St., San Francisco, Calif.
- Aldrich, C. Knight, Dept. of Student Health, State of Wisconsin Gen'l Hospital, Madison, Wisc.
- Allen, Adam O., Vets. Admin., Coatesville, Pa.
- Alpert, Herman S., Marcy State Hospital, Marcy, N. Y.
- Anderson, Charles L., 802 Griswold St., Worthington, Ohio.
- Beanstock, Sam, Vets. Admin., Downey, Ill.
- Beckenstein, Nathan, 681 Clarkson Ave., Brooklyn, N. Y.
- Bennett, Robert B., New Jersey State Hospital, Trenton, N. J.
- Bianchi, John A., 681 Clarkson Ave., Brooklyn, N. Y.
- Bernard, Viola, 930 Fifth Ave., New York City.
- Beyer, Margaret V., Springfield State Hospital, Sykesville, Md.
- Boner, Albert J., 15 West Main St., Madison, Wisc.
- Boyd, Ina Helene, Lock Box 1840, San Antonio 6, Texas.
- Branche, George Clayton, Vets. Admin. Hospital, Tuskegee, Ala.
- Bromberg, Robert, 40 East 61st St., New York City.
- Brown, Warren T., 333 Cedar St., New Haven, Conn.
- Buckman, Charles, Creedmoor State Hospital, Queens Village, N. Y.
- Burack, Samuel, Rm. 817, Blum Bldg., 624 S. Michigan Ave., Chicago, Ill.
- Burn, Edward Morse, 111 N. 49th St., Phila., Pa.
- Campbell, James A., Letchworth Village, Thiells, N. Y.
- Capellari, Elmer E., 6435 Clifford St., Pittsburgh, Pa.
- Cassone, Vincent J., State Hospital, Danville, Pa.
- Chiarello, Carmelo, 681 Clarkson Ave., Brooklyn, N. Y.
- Chirico, Dominick F., 1084 Bay Ridge Parkway, Brooklyn, N. Y.
- Chornyak, John, Mental Hygiene Clinic, Vets. Admin., 366 W. Adams St., Chicago, Ill.
- Clauser, William J., 74 Fenwood Rd., Boston, Mass.
- Cohen, Irwin Justus, 441 West 56th St., New York City.
- Cohen, M. Michael, 8735 Bay Parkway, Brooklyn 14, N. Y.

- Davidson, Henry A., 533 Mt. Prospect Ave., Newark, N. J.
- Davis, John Evan, State Hospital, Trenton, N. J.
- Davis, Vernam T., U. S. Marine Hospital, Ellis Island, New York Harbor, N. Y.
- Dell, Cort, Amerigo Philip, 32 Buffalo St., Canandaigua, N. Y.
- Eisenstein, Victor W., 1212 Fifth Ave., New York City.
- English, Harrison Force, 19 Morningside Drive, Trenton, N. J.
- Feldman, Harold, 1600 South Ave., Rochester, N. Y.
- Ferber, Leon, 4804 Elkins Ave., Nashville, Tenn.
- Finkelhor, Howard S., 8144 Jenkins Arcade, Pittsburgh, Pa.
- Fogel, Ernest J., Harrisburg State Hospital, Harrisburg, Pa.
- Fox, Henry Morgenthau, Peter Bent Brigham Hospital, Boston 15, Mass.
- Frank, Jerome D., 2651 Connecticut Ave., N. W., Washington 8, D. C.
- Frankfurth, Vincent L., U. S. Veterans Hospital, Northampton, Mass.
- Freed, Joe Edward, S. Car. State Hospital, Columbia, S. C.
- \*Friedman, Arnold P., 71 East 77th St., New York City.
- Funkhouser, James B., McGuire Hospital, Richmond, Va.
- Furst, William, 188 Clinton Ave., Newark 5, N. J.
- Gansloser, Wilbert M., 3624 Arsenal St., St. Louis, Mo.
- Gershman, Harry, Central Islip State Hospital, Central Islip, N. Y.
- Gilman, Leonard, Walter Reed General Hospital, Washington, D. C.
- Ginsberg, Leon, Essex County Hospital, Cedar Grove, N. J.
- Ginsberg, Stewart T., Vets. Hospital, Marion, Ind.
- Glueck, Bernard C., Jr., Stony Lodge, Ossining, N. Y.
- Goitein, Lionel, 3 East 74th St., New York City.
- Golden, Morton M., 144 Willow St., Brooklyn, N. Y.
- Goldstein, Joseph L., Highland Hospital, Asheville, N. C.
- Golob, Meter B., 153 Seaman Ave., New York 34, N. Y.
- Gordy, Samuel T., 4312 Spruce St., Phila., Pa.
- Gould, Louis N., Norwich State Hospital, Norwich, Conn.

\* Denotes complementary certification.

- Grand, Henry G., 157 East 62nd St., New York City.
- Greizman, Saul, Torrance State Hospital, Torrance, Pa.
- Grossman, S. Cyrus, 538 Maccabees Bldg., Detroit 26, Mich.
- Hagopian, Peter B., Danvers State Hospital, P. O. Box 50, Hathorne, Mass.
- Haimes, Solomon M., 255 South 17th St., Phila., Pa.
- Hallo, Louis, Vets. Admin. Hospital, Chillicothe, Ohio.
- Harris, Irving D., 907 S. Wolcott, Chicago, Ill.
- Harris, Richard Lamar, Vets. Admin., Neuropsychiatric Hospital, Los Angeles 25, Calif.
- Hawkins, William B., Veterans Hospital, Lyons, N. J.
- Hoffman, Harry, 805 Park Ave., Plainfield, N. J.
- Holland, Charlton Gilmore, Univ. of Virginia Hosp., Charlottesville, Va.
- Hornisher, Joseph J., Brooke General Hospital, Fort Sam Houston, Tex.
- Horst, Elmer Leaman, Vets. Admin., Coatesville, Pa.
- Horvath, Imre E., Vets. Admin. Hospital, Box 2614, Hines, Ill.
- Howell, Ira L., 215 Ross Ave., Alamosa, Colo.
- Huber, Charles B., Veterans Hospital, Roanoke 17, Va.
- Hutchins, William J., 555 Park Ave., New York City.
- Hyatt, Hervert W., Veterans Hospital, American Lake, Wash.
- Ivey, Evelyn P., 28 De Hart St., Morristown, N. J.
- Jackman, Abraham I., 6750 Cornell Ave., Chicago 49, Ill.
- Jarvis, Jack Reynolds, Sheppard & Enoch Pratt Hosp., Towson, Md.
- Johnson, Chester Karle, Jr., Bryce Hospital, Tuscaloosa, Ala.
- Kaufmann, Erich, 1600 South Ave., Rochester, N. Y.
- Kay, Frank Alfred, 510 Medical Arts Bldg., Birmingham, Ala.
- Kelly, Francis W., 200 Retreat Ave., Hartford, Conn.
- Kennedy, Cyril J. C., Kings Park State Hospital, Kings Park, N. Y.
- Kern, Walter S., Rockland State Hospital, Orangeburg, N. Y.
- Knight, Robert Palmer, 3617 West 6th Ave., Topeka, Kans.
- Kowalski, Louis J., Phila. State Hospital, Phila., Pa.
- Kramer, Frederick H., Phila. State Hospital, Phila., Pa.
- Lang, Leonard Charles, 400 Forest Ave., Buffalo 13, N. Y.
- Laxson, Gerald O., Ft. Meade, S. Dak.
- Lazar, Martin, St. Lawrence State Hospital, Ogdensburg, N. Y.
- Leaffer, Harry, 611 W. Mt. Vernon, Springfield, Mo.
- Leaman, Ann Hankins, 111 N. 49th St., Phila., Pa.
- Levinstim, Louis, 334 West 86th St., New York City.
- Levitin, Lawrence A., Langley Porter Clinic, San Francisco 22, Calif.
- Levy, Erwin, 63 East 79th St., New York City.
- Loftus, Thomas Anthony, Hickory Hill, R. F. D. 1, McLean, Va.
- Longley, William H., Jr., State Hospital, Greystone Park, N. J.
- MacKinnon, Harry L., 820 Third National Bank Bldg., Dayton 2, Ohio.
- Matthews, Rudolph S., 3903 Trenholm Rd., Columbia, S. C.
- Mayers, Albert H., 30 East 60th St., New York City.
- McDaniel, Thomas W., Jr., Capt. (MC) USN, U. S. Naval Medical Unit, USPHS Hospital, Fort Worth, Tex.
- McGuire, Ivan, 1112 Kales Bldg., Detroit 26, Mich.
- McKnight, William K., Friends Hospital, Frankford, Philadelphia, Pa.
- Mercurio, Frank, Vets. Admin. Hospital, Coatesville, Pa.
- Mergener, John C., 403 S. Bundy Drive, Los Angeles, Calif.
- Miller, Joseph S., 114 East 54th St., New York City.
- Moore, Burness E., 333 Cedar St., New Haven, Conn.
- Mosco, James A., Vets. Admin., Reg. Off., 415 Pine St., St. Louis, Mo.
- Mullin, Charles S., Jr., Lt. Comdr., U. S. Naval Hospital, Great Lakes, Ill.
- Nelson, Lloyd J., Sub Station No. 60, Queens Village, Long Island, N. Y.
- Oatman, Jack G., State Hospital, Greystone Park, N. J.
- Olson, William S., c/o Langley Porter Clinic, San Francisco, Calif.
- Pauncz, Arpad, Veterans Hospital, Lyons, N. J.
- Pearcy, Frank, 2606 Oak Lawn Ave., Dallas, Tex.
- Petrone, Roscoe B., Vets. Admin. Hospital, American Lake, Wash.
- Pierce, Hugh M., 1600 South Ave., Rochester, N. Y.
- Pleasants, Edward N., State Hospital, Marlboro, N. J.
- Pleasure, Hyman, Central Islip State Hospital, Central Islip, N. Y.
- Potkonski, Leopold A., Phila. State Hospital, Phila., Pa.
- Rankin, James H., Vets. Admin., Neuropsychiatric Hospital, Los Angeles 25, Calif.
- Reder, E. Louis, 945 Bushwick Ave., Brooklyn 21, N. Y.
- Ripley, Herbert Spencer, 525 East 68th St., New York City.
- Rosenbloom, William, Veterans Hospital, Downey, Ill.
- Russman, Charles, State Hospital, Middletown, Conn.
- Sampliner, Robert B., Vets. Admin. Hospital, Van Nuys, Calif.
- Sandler, Nathaniel, 903 Kales Bldg., Detroit 26, Mich.

Schillinger, Arnold A., Veterans Hospital, Northport, N. Y.  
 Schrale, Hervert, Neuropsychiatric Institute, Ann Arbor, Mich.  
 Schrier, Clarence M., State Hospital, Kalamazoo, Mich.  
 Sewall, Lee Goodrich, Veterans Hospital, Lyons, N. J.  
 Sherman, Albert M., 68 Clifton Terrace, Weehawken, N. J.  
 Sitter, Stephen C., 4001 North Prospect Ave., Milwaukee, Wisc.  
 Slaght, Kenneth K., 1600 South Ave., Rochester, N. Y.  
 Smith, Alan Percival, Jr., Veterans Admin. Hospital, Tuskegee, Ala.  
 Schler, Theodore P., 805 Main St., Hartford, Conn.  
 Southard, Curtis G., USPHS Hospital, Fort Worth, Tex.  
 Tamarin, Sidney L., 661 Clarkson Ave., Brooklyn, N. Y.  
 Tarjan, George, Peoria State Hospital, Peoria, Ill.  
 Tarwater, James S., Bryce Hospital, Tuscaloosa, Ala.  
 Tauber, Abraham, 1108 Peoples State Bldg., Pontiac, Mich.  
 Terrence, Christopher F., 681 Clarkson Ave., Brooklyn, N. Y.  
 Tompkins, Harvey J., 4647 South 30th Rd., Arlington, Va.  
 Vestermark, Seymour D., USPHS Hospital, Fort Worth, Tex.  
 Vogel, B. Frank, 30 East 60th St., New York City.  
 Walker, Charlotte Prisch, Neuropsychiatric Institute, Ann Arbor, Mich.  
 Wall, David R., 640 Kingshighway, St. Louis 16, Mo.  
 Wander, Maurice C., Kings Park State Hospital, Kings Park, L. I., N. Y.  
 Warne, Merna Mary, State Hospital, Greystone Park, N. J.  
 Webb, Robert W., 1919 Massachusetts Ave., Washington, D. C.  
 Weil, Frederic S., 49 East 86th St., New York City.  
 Weinberger, Jerome L., 117 Bay State Rd., Boston, Mass.  
 Weinreb, Joseph, 16 Poplar St., Elmsford, N. Y.  
 Weiss, Samuel A., 786 Palisade Ave., Teaneck, N. J.  
 Weissman, Max, 262 Central Park West, New York City.  
 Weitz, Paul, Veterans Hospital, Lyons, N. J.  
 Wimick, William, Veterans Hospital, Coatesville, Pa.  
 Wise, Robert Andrew, 1600 South Ave., Rochester, N. Y.  
 Wright, David Graham, 305 Blackstone Blvd., Providence, R. I.  
 Zeltzman, Israel, 96 State St., Augusta, Me.

## PSYCHIATRY

(On Record)

Asselin, George F., 100 E. Jeffery St., Kankakee, Ill.  
 Bailey, Marion Prentiss, Vaughan General Hospital, Mines, Ill.  
 Bean, Victor H., Vets. Admin. Hospital, Fort Lyon, Colo.  
 Binger, Carl A. L., 125 East 73rd St., New York City.  
 Blanton, Smiley, 115 East 61st St., New York City.  
 Borden, Parker G., Vets. Admin. Hospital, Canandaigua, N. Y.  
 Botts, Harry H., Vets. Admin. Hospital, Marion, Ind.  
 Bowers, Walter Garfield, 409 Douglass St., Reading, Pa.  
 Brennan, Thomas F., 3 Old Mamaconeck Rd., White Plains, N. Y.  
 Bryant, Robert Homer, P. O. Box 191, Alexandria, La.  
 Burdick, Charles Henry, Vets. Admin., Minneapolis, Minn.  
 Burrier, Walter Painter, Vets. Admin. Hosp., Bedford, Mass.  
 Carriel, Joy Ricketts, 750 S. State St., Elgin, Ill.  
 Chamberlain, Olin B., Medical College of S. Car., Charleston, S. C.  
 Curry, Marcus A., State Hospital, Graystone Park, N. J.  
 Curtis, Howard C., 116 S. Main St., Wichita, Kans.  
 Davis, Charles F., Vets. Admin., St. Cloud, Minn.  
 Drayton, William, Jr., 1930 Spruce St., Philadelphia, Pa.  
 Fagley, Raymond C., Veterans Administration, Newark 2, N. J.  
 Ferran, John Blaize, Jr., State Hospital, Binghamton, N. Y.  
 Foley, Floyd K., c/o Eastern State Hospital, Lexington, Ky.  
 Fulmer, Joseph C., Veterans Hospital, Coatesville, Pa.  
 Gardner, William A., Vets. Admin. Center (P. O. Box 391), Togus, Me.  
 Gould, James Alfred, Vets. Admin., Branch Off. No. 13, Box 1260, Denver 1, Colo.  
 Hagerty, Thomas W., Camarillo State Hospital, Camarillo, Calif.  
 Hansen, Hans, Veterans Hospital, Canandaigua, N. Y.  
 Harkey, Clifford E., Vets. Admin. Hospital, N. Little Rock, Ark.  
 Haskins, John LeRoy, Morningside Hospital, Montaville Station, Portland, Ore.  
 Hedin, Carl Johan, Bangor State Hospital, Bangor, Me.  
 Hentz, Roger F., Vets. Admin. Hospital, Fort Custer, Mich.  
 Hubbell, Hiram O., Newark State School, Newark, N. Y.

Hunter, James Richard, State Hospital, Kankakee, Ill.  
 Johnstone, Kristine, Napa State Hospital, Imola, Calif.  
 Kiser, Avenia Rads, Napa State Hospital, Imola, Calif.  
 Liberman, David Lionel, Vets. Admin. Center, Wood, Wisc.  
 Lopez, Louis V., Vets. Admin. Hospital, Fort Lyon, Colo.  
 Lorenz, William, 1300 University Ave., Madison, Wisc.  
 Lyon, Ploy B., State Hospital, Terrell, Tex.  
 Marnell, Frank S., R. 3, Box 254, Santa Cruz, Calif.  
 McCarthy, Harriet S., 100 E. Jeffery St., Kankakee, Ill.  
 Morris, Cecelia K., State Hospital, Cleveland, Ohio.  
 Morrow, George William, 100 E. Jeffrey St., Kankakee, Ill.  
 Mountford, Arthur Harold, Vets. Admin. Hospital, Sheridan, Wyo.  
 O'Brien, John Francis, Vets. Admin. Facility, Bedford, Mass.  
 Oliver, Alfred S., Napa State Hospital, Imola, Calif.  
 O'Neil, James C., 69 Mansfield Ave., Burlington, Vt.  
 Parkin, Victor, 323 Subway Terminal Bldg., 417 So. Hill St., Los Angeles 13, Calif.  
 Patterson, William L., Fergus Falls State Hospital, Fergus Falls, Minn.  
 Payne, Guy, Essex County Hospital, Cedar Grove, N. J.  
 Pettit, James Kenneth, Veterans Admin., Pass-a-Grille Beach, Fla.  
 Plant, James Stuart, 51 13th Ave., Newark 3, N. J.  
 Plumb, Darley Garfield, Veterans Hospital, Fort Lyon, Colo.  
 Pringle, John A., Vets. Admin. Hospital, St. Cloud, Minn.  
 Ribble, Margaret Antoinette, 59 West 12th St., New York City.  
 Riley, William J., Veterans Administration, Indianapolis, Ind.  
 Roberts, Albert L., Veterans Hospital, Tuscaloosa, Ala.  
 Royal, Paul A., 5515 South St., Lincoln, Nebr.  
 Rubin, Harry, Vets. Admin. Hospital, Chillicothe, Ohio.  
 Singleton, Dennis B., Veterans Hospital, Mendota, Wisc.  
 Snavelly, Earl H., Newark City Hospital, 116 Fairmount Ave., Newark, N. J.  
 Soper, Arthur B., Kings Park State Hospital, Kings Park, N. Y.  
 Stewart, Edgar A., Vets. Admin. Center, Dayton 7, Ohio.  
 Thompson, John James, Vets. Admin. Hospital, Danville, Ill.  
 Thompson, William James, Don Caesar Vets. Admin. Facility, Pass-a-Grille, Fla.

Tighe, Leo R., Vets. Admin. Hospital, Augusta, Ga.  
 Toms, Roland B., Vets. Admin. Hospital, Northport, L. I., N. Y.  
 Trent, Letcher Evans, Mendota, Wisc.  
 Vavasour, James F., Long Lota Rd., Green Farms, Conn.  
 Veeder, Willard H., Craig Colony, Sonyea, N. Y.  
 Wafer, Raymond Farnham, Vets. Admin., Canandaigua, N. Y.  
 Williams, Guy H., Hawthornden State Hospital, Macedonia, Ohio.  
 Woods, Leo Clement, Vets. Admin. Hospital, Knoxville, Ohio.  
 Wright, Frederick L., c/o Harlem Valley State Hospital, Wingdale, N. Y.  
 Young, Roy Carl, Fenwick Sanitarium, Covington, La.  
 Zimmerman, Charles LeRoy, Danville State Hospital, Danville, Pa.

## NEUROLOGY

(By Examination)

\*Ascher, Abraham H., 125 Lenox Rd., Flatbush, Brooklyn, N. Y.  
 \*Borough, L. D., 600 E. Main St., New Albany, Ind.  
 Campbell, J. Robert, 1910 Citizens Bldg., Tampa, Fla.  
 \*Fielding, Lewis J., Vets. Admin., Neuropsychiatric Hosp., Los Angeles 25, Calif.  
 \*Florio, William A., U. S. Army General Dispensary, Pentagon Bldg., Washington, D. C.  
 \*Hamburger, Werner, Utica State Hospital, Utica, N. Y.  
 Hesser, Frederick H., Duke Hospital, Durham, N. C.  
 Jaffe, Daniel Solomon, 900 17th St., N. W., Washington, D. C.  
 \*Litteral, Emmett B., Letterman General Hospital, U. S. Army, San Francisco, Calif.  
 \*Luke, Harry B., Pilgrim State Hospital, West Brentwood, N. Y.  
 Millikan, Clark H., University Hospitals, Iowa City, Iowa.  
 O'Brien, Veronica, Grasslands Hospital, Psychiatric Division, Valhalla, N. Y.  
 Rogers, Fred Terry, 4105 Live Oak St., Dallas 1, Tex.  
 Ross, Ira Stanley, 188 Clinton Ave., Newark, N. J.  
 Ruskin, Dave Burnard, Caro State Hospital, Caro, Mich.  
 Schumacher, George A., 43 Pinecrest Parkway, Hastings-on-Hudson, N. Y.  
 \*Shlionsky, Herman, 65 Church St., Montclair, N. J.  
 Williams, Jonathan M., 31 North State St., Chicago, Ill.  
 Winkler, Emil Guenther, 24-21 27th St., Long Island City 2, N. Y.  
 Zeritsky, Samuel A., 1718 Roselyn St., Philadelphia 41, Pa.

## NEUROLOGY

## (On Record)

- Hirschfeld, Mervyn Heller, 516 Sutter St., San Francisco, Calif.  
 Parker, Harry Lee, Mayo Clinic, Rochester, Minn.  
 Williamson, Alexander Hamilton, Vets. Admin., Pass-a-Grille, Fla.

## NEUROLOGY AND PSYCHIATRY

## (By Examination)

- Bercel, Nicholas A., 212 S. Gale Drive, Beverly Hills, Calif.  
 Cohen, Sidney, Montefiore Hospital, Gun Hill Rd., New York 67, N. Y.  
 Crevello, Albert J., 6302 Sherwood Rd., Philadelphia 31, Pa.  
 Darmstadter, Herbert J., 4617 York Rd., Philadelphia 40, Pa.  
 De Shon, Herbert Jackson, 74 Fenwood Rd., Boston 15, Mass.  
 Garrard, Robert L., 54 Wabun Ave., Providence, R. I.  
 Gill, Wilfrid M., 1900 Euclid Ave., Cleveland, Ohio.  
 Heath, Robert G., Neurological Institute, 710 W. 168th St., New York City.  
 Kendall, Bruce Lynn, 722 W. 168th St., New York City.  
 Lebeaux, Lincoln, 310 River Road, Bogota, New Jersey.  
 Lubin, Albert J., Stanford Univ. Hospital, San Francisco, Calif.

- Lyman, Richard Sherman, Duke Hospital, Durham, N. C.  
 Meltzer, Theodore, 629 Marcy Ave., Brooklyn, N. Y.  
 Myerson, Paul, 171 Bay State Rd., Boston 15, Mass.  
 Sapirstein, Milton R., 110 E. 87th St., New York City.  
 Weinblatt, Morris, 2007 Ohio Bldg., Toledo, Ohio.  
 Weisman, Avery D., Massachusetts General Hospital, Boston, Mass.  
 Weitzen, Hyman G., 115 E. 61st St., New York City.  
 Whitsell, Leon J., Stanford Univ. Hospitals, San Francisco, Calif.

## NEUROLOGY AND PSYCHIATRY

## (On Record)

- Doolittle, Glenn John, Sonyea, N. Y.  
 Ey, Francis Argyle, 1202 Bankers Trust Bldg., 406 6th Ave., Des Moines 9, Iowa.  
 Englander, Charles, 41 Hillside Ave., Newark, N. J.  
 Jillson, Walter Arthur, Vets. Admin. Diagnostic Center, San Francisco 21, Calif.  
 Josephy, Herman, 6500 Irving Park, Chicago 34, Ill.  
 Murphey, Pat, 904 Scott St., Little Rock, Ark.  
 Smith, Groves Blake, "Beverly Farm, Inc.," Godfrey, Ill.  
 Smith, Henry Greene, Essex County Hospital, Cedar Grove, N. J.  
 Straus, Erwin W., U. S. Vets. Admin. Hosp., Lexington, Ky.  
 Unterberg, Hillel, 32 Frisco Bldg., 906 Olive St., St. Louis 1, Mo.  
 Wassing, Hans, 695 Broadway, Paterson, N. J.

## BOOK REVIEWS

CRIME AND THE HUMAN MIND. By *David Abrahamson, M.D.* (New York: Columbia University Press, 1944.)

It is to the author's credit that he approaches the subject by considering the criminal as a whole, emphasizing the influence of the environment in the genesis of the criminal's behavior and stressing the emotional as well as the unconscious motivations. The whole book is permeated with the functional dynamic rather than a static approach. It suffers, however, from numerous defects and limitations which seriously impair its usefulness. It reflects a desire to please all sorts of views. The author has mixed up Freud, Jung, and Adolf Meyer, without producing a synthetic product. Thus we are treated to Jung's concept of the collective unconscious as a foundation to explain part of the criminal's inheritance, built out of instincts and archetypes. This, as presented, does not seem to fit well with the analytic and non-analytic approaches that the author makes elsewhere. Had the author considered Freud's contribution to anthropology, "Totem and Taboo" for instance, he could have explained the criminality without resorting to the highly theoretical concept of the collective unconscious. The author recognizes that "each offender selects his own crime" and further contends "that since desire toward crime is present in all humans, criminals are not very different from any law abiding citizen." He then goes on to say that "crime may, therefore, be only a surface symptom or a symptom of mental illness which has existed a long time." Yet, in the same breath, he accepts the old-fashioned and out-worn concept of accidental and chronic criminality, which entirely contradicts the above statement.

Concerning the etiology of crime, the author makes a broad statement, namely, that "crime may be considered a product of a person's tendencies and the situation of the moment interacting with his mental resistance" without specifying the exact connotation of these terms, which in themselves are nebulous enough. The reviewer feels the author also tends to contradict himself when he states; "It may be assumed then that it is not the tendencies and resistance embodied in the structure of the individual which carry him into crime, nor the situation as such, but the fact that he is functioning in the wrong set-up." And what is the "wrong set-up"? No statement appears to clarify it. The author thus appears to reduce the etiological concept of crime into a simple formula, based on generalizations.

Nowhere, however, are the author's limitations in his attempts to establish psychogenic motivations in crime more evident than in his discussion of psychopathy and super-ego. Thus in speaking of psychopaths, he states that the psychopath has no conscience or has a damaged conscience. This

is a very strange statement to make. Just what does he mean by damaged or impaired conscience? (p. 60, p. 125). Is it the frontal lobe that is sick, or any particular area? What does he mean by conscience anyway? All this doesn't mean a thing unless he would give a definitive statement about the development and structure of super-ego. The whole chapter or classification is superficial and is not based on dynamics. In view of the fact that psychopathy seems the most touchy subject in the whole field of psychiatry and at the same time most important for the problem of crime, one would expect it to receive considerable attention whereas actually, it receives very little.

While the author should be praised for advocating the psychogenetic approach to crime, his views are not based on his own cases, but consist almost entirely of borrowed material, taken mainly from the records from the Court of General Sessions indicating but little personal knowledge of the matter. It is not even certain from the book that the author understands psychoanalysis. One might say that while he knows a lot about psychoanalysis, he does not understand psychoanalysis. Nothing, however, reveals so clearly the author's basic weakness as his presentation of cases. One would suppose that a man who stresses so emphatically psychogenesis in crime would give us at least a few well-thought-out, well-worked-out, cases. Instead we are treated to commonplace descriptive material which can be found in the files of any clinic, followed by the author's extravagant and wholly unwarranted interpretations. Let us see what he actually gives us.

Case 1. (Page 3.) A certain man killed his wife because he got tired of her. What a spectacular discovery of a cause of murder! The author further states that the man married the woman because she was a symbol of his mother. No proof whatever is given of this or other symbolism. In fact, the case is so brief, it couldn't be proof of anything. It is this type of statement that incurs the criticism of many people because of large deductions from unusually small premises.

Case 2. (Page 57.) A certain individual had a congenital clubfoot which considerably hampered his normal development. He tried to compensate for this by drinking, so he could have more courage and become more aggressive. The result was a series of crimes. Is this not a remarkable explanation for a man who talks about psychodynamics? The reviewer does not feel that physical inferiority need cause one to become a criminal. There has been no substantial basis for such a supposition. Inferiorities are apt to make the individual a non-criminal neurotic. Short-statured Japanese built colossi that exceeded the pyramids in size. The late President Roosevelt, who was handicapped most of his adult life, is a towering example of an inferiority not interfering with normal progress.

Case 3. (Page 62.) A man forges a check to support his family. To say that this is a puerile and jejune explanation for an author who claims to speak in psychodynamic terms is an understatement. If all the people who had difficulties supporting their families forged checks there would not be enough prisons to house even a small fraction.

Case 4. (Page 97.) A twenty-year-old man who, two years prior to his present offense, had committed burglary, was now charged with a "holdup." No psychogenetic explanation is given as to why this man stole except to say, "It seems that the patient's first 'nervous breakdown' was apparently an approaching schizophrenic episode in which he committed the burglary."

Case 5. (Page 62.) A thirty-two-year-old man was convicted of burglary. The author infers that this man, because of being reared in poor surroundings and starting work when he was fourteen in addition to the fact that his wife left him, had found it difficult to get a suitable job. He was induced to enter a store and steal food and clothing for himself and his child. The author merely states, "We see a man, who in spite of absence of emotional conflicts, perpetuated a crime which to a large extent was prompted by the circumstances." And this from an author whose chief thesis is that crimes are caused by emotional factors!

Case 6. (Page 156.) "A man suffering from schizophrenia murdered his wife to whom he had been married for fifteen years. When he was a child his mother left him and his father for another man. In school he was teased about being "motherless" and he withdrew and became seclusive, etc. Relations with his wife became strained—one evening he shot and killed her." The author fails to elaborate on the psychodynamics of this particular crime except to state without one grain of verification, that there was an identification of his wife with his mother and that the psychosis seemed to be a kind of preparatory state to annihilating the victim.

It would be distressing to continue anatomizing his cases. They are all of the same pattern. Not one gives us even a glimmer of insight into the psychogenesis of crime.

The author's chapter on the history of criminality begins with a discussion of the much overquoted and by now obsolete view of Lombroso. He brings the reviews up to 1900 and then, for some unexplained reason, leaps to the 1930's omitting a whole generation and a vast amount of useful material that is probably much more pertinent than a consideration of Lombroso. Surely there was the place to mention Charles H. Hughes, the famous editor of "Alienist and Neurologist," who has contributed so much to clarifying our views on psychiatry and criminality. More amazing still is the failure to mention Dr. William A. White, whose name does not appear anywhere in the book. This is truly unforgivable for a man who claims to have spent some time at St. Elizabeths Hospital. Dr. White may truly be regarded as the father of criminal psychopathology in Amer-

ica. His books dealing with psychiatry and psychology of crime were most popular during his lifetime and have done a great deal to stimulate interest in the subject. After 1930, the author mentions in one paragraph a number of men most of whom would not even personally lay claim to being experts in criminal psychopathology—and after all, he is writing a book on criminal psychopathology and not on penology or forensics. His only justification in citing these names appears to be that these men occupy key positions in one field or another and, therefore, it is good policy to mention them. Dead men, even though they stand significantly as milestones in the history of the subject, are no longer useful to him.

His attempts to classify criminals into accidental and chronic belies his previous claim that crime must be an expression of a life-long situation; for in the light of psychodynamics, even those who are accidentally criminals have a long background which has prepared them for the so-called accident of crime. The division of murders into manifest murderers and symptomatic (p. 162 et seq.) is not justified by any dynamics because he ignores the emotional aspects, so that an individual who would be classed as a manifest murderer may actually, in terms of psychodynamics, be classified otherwise.

The bibliography is significant not by its extent but by its omissions. A total of 150 references are mentioned, of which about one-half belong to the general field of Psychiatry and the others to criminality proper. When one reflects that there must be at least several thousand references on the subject, if one goes back as far as the author started, the inclusion of only seventy-five and the failure to include the major part of the rest, is significant. For instance, though the author discusses psychopathy, Maugh's Monograph on the subject of psychopathy is not mentioned, nor are many other worthwhile contributions to the subject. The author appears to have indulged in hasty reading. It is also of interest that in the discussion of kleptomania and pyromania he omits entirely the work of Stekel, who was a pioneer in that field. Neither does he mention Schmidt, a pupil of Jung. The only work of Stekel's the author mentions is "Sadism and Masochism," which has little direct bearing on criminality.

It may be questioned whether the author is fully qualified to write a book on criminal psychodynamics. His preparation does not impress one as being quite sufficient; his own references in the bibliography are but few. The book lacks the maturity and reflection that come only with the ripeness of experience. There is no royal road to criminal psychopathology except the long and arduous one of hard work. If the author devotes himself to this field for another ten years, he may still produce a very useful work. Particularly should he make his own researches in case material, which should represent many hours of effort, and not be confined to superficial interviews. The material upon which he has drawn does not satisfy the demand for deeper motivation for which he makes

such a valiant claim. However, on the basis of his endeavor to expose the psychic roots of crime and to emphasize the "man-behind-the crime" aspect of criminality, the book may be worth the attention of all those interested in criminology.

FRANK S. CAPRIO, M. D.,  
Washington, D. C.

PSYCHIATRIC ASPECTS OF MODERN WARFARE. By  
*Reg. S. Ellery.* (Melbourne: Reed & Harris,  
1945.)

This book set forth to be controversial and succeeded; the chief controversy was in attempting to ascertain its purpose. The fact that it came to the reviewer after the heat of actual war had greatly cooled off made many of the energetically rhetorical expressions fall quite short. Similarly, the usual basic statements describing military psychiatry which though decorated by much metaphor and well-turned phrases gave the impression that the author was an avid exponent of the obvious. The text itself was composed of very well known facts of general and military psychiatry abundantly interspersed with abruptly placed personal opinions or evangelisms—and gruesome pictorial representations of the horrors of war.

With a number of the statements the reviewer disagreed: "... that psychiatric treatment is more of an art than a science," and "... the psychiatrist, living in a world of mental misfits, is more likely to read a dire significance into certain symptoms ..." and "only the ignorant and the superstitious are wont to invoke the Deity ... in times of crisis." Or, "Many who break down in modern warfare have been found to have been men who achieved little success in civil life. Many were occupational misfits." The reviewer wondered at the author's comparisons between the "havoc and wreckage ... in the war torn countries of Europe" and the "surprisingly few psychiatric casualties" of the people of Britain. Difficulty was encountered in following the trend from the "unholy mess" we humans made of our "mundane affairs" in "orgies of decimation" because of the "predatory behaviour of capitalist nations" and because "people want to fight" through the psychology of authoritarianism. A sober, brief outline of the emotional (and neuro-sympathetic-endocrine) ills of the combatant, the home-fronter and besieged civilian was presented in about eighty pages. So much material had to be covered that the big items were necessarily quite sketchy.

As a concluding section the author became more positively protagonistic for the universal knowledge of psychology as a cure for world ills—although the author doubtlessly knows that telling a psychiatrically ill patient of his illness brings him no nearer to health.

Many statements in the book impressed the reviewer that the author was actively dissatisfied with the existing religious-philosophic-economic-psychiatric state of the world but that to him there might be hope in "political faith" (Russian type)

with "self-determined socialism" and "something to take the place of Christianity."

EMERICK FRIEDMAN, M. D.,  
Norwich State Hosp.,  
Norwich, Conn.

THE FALLING SICKNESS: A History of Epilepsy from the Greeks to the Beginnings of Modern Neurology. By *Owsei Temkin.* (Baltimore: Johns Hopkins Press, 1945.)

The belief that the history of a disease process is essential to full understanding of that disease is nowhere better exemplified than in the history of Epilepsy as embodied in "The Falling Sickness" by Owsei Temkin.

From the teachings of Hippocrates and his contributors who first attacked the superstitions, magic and wizardry of antiquity and saw in the brain the real seat of the disease, the reader is deftly guided through the conflicting theories and periods as they reflected the general cultural level of the times to the end of the 19th Century when, somewhat belatedly, the enlightenment of Pinel, Esquirol, Charcot and above all Hughlings Jackson had dispelled the taboos, amulets and mysticisms of The Sacred Disease. In fact, the whole long history of epilepsy is bound up in the controversial wranglings of the Theologians who insisted upon the divine or demoniacal basis of the disease and the physicians who, with varying success, upheld the natural causes of the disease. After Hippocrates and his treatise on phlegm and black bile, Galen taught that the psychic pneuma lay in the ventricles exuding at intervals over the nerve roots—hence the therapeutic necessity of the convulsive movements to shake them off. He classified epilepsy under two headings:

- I. Idiopathic epilepsy arising in the brain.
- II. Sympathetic epilepsy arising elsewhere and passing to the brain in the guise of a breeze (the early aura).

This classification persisted in name if not in import throughout the varying theories of the ages until the late 18th and early 19th Centuries.

Though the influence of the Great Alexandrian School successfully upheld the Hippocratic and Galenic theories, no new ideas evolved during this period. Indeed during the Renaissance the influence of the physicians appreciably waned before the renewed efforts of the theologians and their demoniacal possession. However, the Period of the Renaissance saw many notable observations recorded, some of which are the origin of epilepsy in a pia-penetrating head wound permitting a fetid ichor to reach the brain; the development of epilepsy many years after a head injury; the cure of epilepsy by trephine and bone elevation and the causative relation of epilepsy to syphilis and some infective diseases.

Somewhat later, localized epilepsy was well recognized and about 1600 A.D. Le Pois rung the death knell of sympathetic epilepsy (the breeze theory) of the older physicians in his dictum that

all epilepsy had its origin in the brain. His theory of irritation was soon displaced by the chemical and physio-chemical theories of Sylvius and Willis and finally during the 19th Century The Falling Sickness, with its theological trappings of mysticism and religious conjuration gave way before the overwhelming forces of logic and reason, as propounded in the teachings of Brown-Sequard, Claude Bernard, Bright, Charcot and Hughlings Jackson, of whom the latter is given his preëminent place in the history of this disease. Of passing interest is the author's confirmation of the generally held belief that amongst the epileptics of history may be found such notables as Julius Cæsar, Caligula, Torquata, Mohammed, Charles V and Napoleon.

It is impossible to fully portray the worth of this book in a mere review. Though primarily a storehouse of factual lore, well assembled, very readable and abounding in references, this volume, illustrated with a number of old prints, presents a most artistic design—all of which recommends it to all students of this disease.

FRED H. MACKAY, M.D.,  
McGill University Montreal.

CHARACTER ANALYSIS. By *Wilhelm Reich*. (New York: The Orgone Press, 1945.)

This book was first published in the German language in 1933 and the present edition is the first translation into the English language. In his preface to the present edition the author states that the book appears in its original form although character-analysis as presented at that time has since developed into "vegetotherapy" with far-reaching changes in technics as well as concepts. No discussion of these newer concepts is included in the present volume beyond the indication that the author now thinks in terms of "biotherapy" and considers the psychotherapeutic technics of character-analysis as "an indispensable auxiliary technique in vegetotherapy."

The present volume presents the psychotherapeutic technics of character-analysis as they were worked out in Vienna between the years 1925 and 1933. The author states that the book was written in the framework of Freud's psychoanalysis and feels that in this framework it is still valid today. It was written primarily for psychoanalysts in practice and in training. The material of the book is presented in two parts: Part I. Technique, and Part II. Theory of Character Formation. To the present reviewer the material in Part I seemed the more valuable part of the book. Here the author keeps his discussion of psychotherapeutic technics close to his own clinical experience and it is this which gives this section particular weight. The practising psychotherapist will find a good deal of interest in the author's discussion of the handling of latent negative resistance.

Many American readers may feel that the author defines his strategic objective in therapy—direct sexual gratification as the criterion of and requirement for the maintenance of emotional health—within unduly rigid and dogmatic limits. How-

ever, his differentiation between the analysis of *what* the patient says (content-interpretation) and *how* the patient says it (character-analysis), and his discussion of effective timing, especially in the early phases of treatment, seem particularly worthy of attention.

While the theoretical nature of Part II of the book is indicated in the title of this section, the material is presented in somewhat more dogmatic form than strict scientific standards would seem to justify.

Included in this book as an Appendix is the translation of a paper read by the author at the International Psychoanalytic Congress in 1934, entitled "Psychic Contact and Vegetative Current." The material in this paper apparently is an embryonic form of the author's later concepts, and might logically have been omitted from the present volume.

BARBARA J. BETZ, M.D.,  
Henry Phipps Psychiatric Clinic,  
Baltimore, Md.

THE SEXUAL REVOLUTION. By *Wilhelm Reich*. (New York: The Orgone Press, 1945.)

This volume is the first translation into the English language and the third edition of the book published previously in the German language in the years 1930 and 1936. It is primarily a polemic rather than a scientific study, both in the manner of presentation and in the content of the material presented. The author has one central thesis which he accepts as factual without question of doubt and which may be stated briefly: the miseries of the world, both individual and social, are directly caused by the suppression of natural sex strivings; this suppression is not due to biological factors but to the restrictive moral ("sex-negative") attitudes of society; with the elimination of sexual repression, antisocial impulses will also be eliminated; this is to be accomplished by, specifically, replacing the moral regulations sanctioning sexual abstinence for children and adolescents and compulsory marital fidelity which is "in itself pathological" and the "arch-enemy of natural morality," by permissive, "sex-positive" attitudes in these respects. In fact the author sees all moral regulation as antithetical to nature, "life-negative" and productive of antisocial impulses. The authoritarian family structure, he believes, has been and is the educational apparatus which has perpetuated these moral regulations of society. If they are to be overthrown—the sexual revolution—a non-authoritative, collective structure must be substituted for the authoritarian family.

The book is organized in two parts, the titles of which indicate the nature of the content. Part I is entitled "The Fiasco of Sexual Moralism" and Part II, "The Struggle for the 'New Life' in the Soviet Union." The author feels that the Russian Communists made a proper start in their first five-year plan toward a greater sexual freedom for the individual. With subsequent legislation reestablishing certain moral regulations, the advance of

the sexual revolution as the author sees it has suffered.

This book may have some appeal to the reader who already holds or would like to hold views similar to the author's. It is questionable whether the reader who approaches the book more objectively will find sufficient evidence to lead to his adherence to the author's thesis. Certainly the present-day clinician will take exception to the author's all-or-none perspective, with failure to give thoughtful consideration to alternative possibilities, and to his narrow, inflexible etiologic concepts and therapeutic objectives.

BARBARA J. BETZ, M.D.,  
Henry Phipps Psychiatric Clinic,  
Baltimore, Md.

THE PERSON IN THE BODY. By Leland F. Hinsie, M.D. (New York: W. W. Norton and Co., Inc., 1945.)

This small and interesting volume addressed primarily to physicians in branches of medicine other than psychiatry should be of value also to the psychiatric specialist. Most, if not all, formal text-books of psychiatry impress the reviewer as top-heavy with descriptive matter based on State Hospital material and as over-sedulous in devoting space to the traditional classifications of personality disorder. Many texts of this sort are likely to leave the medical student with little practical information about those patients who constitute the vast majority of personality disorders. This book ably and vividly focuses attention on the very problems that most physicians in practice will confront.

The first case history, with which the book opens, is excellently presented and interpreted. The complaint reveals its vivid symbolism naturally and with no forcing of issues as the patient is encouraged to redefine it while he repeatedly discusses his life situation. The complex and intricate dynamic factors reveal themselves in a formulation not only effective but remarkably concise. This opening chapter is definitely the high point of the book.

There is, however, much of value in the work as a whole. The beginner in psychiatric study will find a broad discussion of factors leading to conflict and of the mechanisms that result in symptoms and disability. The dynamic principles of personality disorder are well illustrated in concrete clinical examples. Many sound points about psychotherapy are brought out. Among these one

notes the necessity of letting the patient find his way to insight, instead of forcing an untimely verbal explanation from without; the deep importance of realizing that, however inaccurate his words, the patient's complaint usually represents something genuine and something serious. Common and true forces in human development, such as the fact that a child may almost completely lose sight of one side—good or bad—of a parent, are expounded so ably that many who know of these matters vaguely in words may, on reading, grasp them emotionally and practically.

One might complain of the author's sharply distinguished use of the words "mind" and "body" with the easy implication of an unnecessary and scarcely defensible dualism that psychiatry is trying to outgrow. Even when the *mind* is referred to as an "organ" of the body confusion may be offered to a naive reader. Psychiatrists who have worked through these verbal pit-falls will probably understand the author and realize that he is not laboring with false assumptions; but these terms may give gratuitous trouble to the beginner. A meanly carping critic, particularly if moved by envy of the generally good English of this work, might delight in pointing out that there is little reason to use the word *individual* repeatedly when *person* or *patient* would be better usage and free of the artificiality in that outworn but of archaic novelty that so regularly, and involuntarily, pock-marks even the best medical writing. More serious arguments might be raised about the statement that real sexual feeling and activity do not begin until just before puberty. Such possible arguments would revolve, perhaps, about what such words as *sex* mean. It must be plain to any psychiatrist that genital activity often occurs long before this time, even as it is plain that mature sexual attitudes, in a full and healthy sense, all too frequently are never achieved. One might ask also that the author explain more definitely his distinction between *genderism* and *sexuality*. This term might be more useful for definite application if it were more adequately clarified.

Despite any critical or argumentative questions which might be brought, this book remains a valuable contribution to psychiatry where the need for good material is urgent. It is a brief and modest expression of the principles that have been most helpful in dealing with personality problems. It is highly recommended.

HERVEY CLECKLEY, M.D.,  
School of Medicine, University of Georgia,  
Augusta, Georgia.